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Access DB# 94067

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Charlotte Harrison Examiner #: 74790 Date: 5/13/03
Art Unit: 2872 Phone Number 30 5-3937 Serial Number: 09644136
Mail Box and Bldg/Room Location: 6A27 Results Format Preferred (circle): PAPER DISK E-MAIL
cmh2

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: Aug 22 2000

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Fast & Focused

example
* Firewall's see attached *

(Macromediz)

05-14-93 P04:05 IN

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	Type of Search	Vendors and cost where applicable
Searcher: <u>Pamela Reynolds</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: <u>306-0255</u>	AA Sequence (#) _____	Dialog <u>✓</u>
Searcher Location: <u>PLC 3603</u>	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: <u>5-15-2003</u>	Bibliographic <u>✓</u>	Dr. Link _____
Date Completed: <u>5-15-2003</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>8h</u>	Fulltext <u>✓</u>	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet <u>✓</u>
Online Time: <u>120</u>	Other _____	Other (specify) _____



STIC Search Report

EIC 2600

STIC Database Tracking Number: 94067

TO: Chant'e Harrison
Location: PK2, 6A27
Thursday, May 15, 2003

Case Serial Number: 09644136

From: Pamela Reynolds
Location: EIC 2600
PK2-3C03
Phone: 306-0255

Pamela.Reynolds@uspto.gov

Search Notes

Dear Chante Harrison

Please find attached the search results for 09644136. I used the search strategy I emailed to you to edit, not hearing from you I proceeded. I searched the standard Dialog files, **not the patent files**, Proquest, and the internet.

I contacted the author of two articles on Fireworks originally published in 1996. Hopefully we will get a response.

I printed out several full-text articles on Fireworks.

If you would like a re-focus or if you would like the patent files searched please let me know.

Thank you.

Pamela Reynolds

12/7,K/1 (Item 1 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
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2173478 Supplier Number: 02173478 (THIS IS THE FULLTEXT)
Macromedia Debuts Fireworks, Upgrades Flash
(Macromedia Inc introduces Macromedia Flash 3, design tool for interactive
vector graphics and animation on the Web)
EMedia Professional, v 11, n 7, p 23+
July 1998
WORD COUNT: 292

TEXT:

Macromedia Inc. has announced a major upgrade of Macromedia Flash 2, its design tool for interactive vector graphics and animation on the Web. The company also unveiled Macromedia Flash Generator, a new server-based product for the real-time generation of Web graphics and animation. Flash 3 offers a number of new design capabilities for creating and delivering Web animation, graphics, navigation, maps, cartoons, and more. These include vector and bitmap transparency, animated buttons and menus, shape morphing, bandwidth profiling, and standalone projectors. Flash Generator, meanwhile, automates the real-time creation of Web graphics. Any graphic can be driven from a data source and refreshed without redesigning the entire graphic or page. Flash 3 for Windows 95, Windows NT, and Power Macintosh is available for an estimated street price of \$299, or for an upgrade price of \$99 from any previous version of Flash or FutureSplash.

Macromedia has also introduced **Fireworks**, a production tool that provides a unified environment for creating, **optimizing**, and producing high-quality graphics for the Web. Created to address the needs of professional Web designers, the new tool incorporates features such as a visual **export** preview, complete control over compression and color palettes, automatic generation of button states and JavaScript rollovers, and editable text and effects. To help designers balance image quality and bandwidth requirements, **Fireworks** displays file size and download time data, updating these dynamically as the user **optimizes** the graphic. **Fireworks** also provides a built-in "Image Map layer" to facilitate assignment of URL links, as well as a button-generation feature that automatically produces up, down, rollover, and hit states for button graphics, along with the JavaScript code to control the button behavior. **Fireworks** for Windows 95, Windows NT, and Macintosh PowerPC is available for an estimated street price of \$299.

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(USE FORMAT 7 OR 9 FOR FULLTEXT)

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Studio(TM). Together Dreamweaver and Fireworks provide an unbeatable environment for producing dynamic Web graphics and clean HTML code. For a limited time, registered customers using the previous version of Fireworks with any other Macromedia product can upgrade to Fireworks 2 for only US \$39 (see pricing and availability for details).

"When Macromedia first released Fireworks it changed Red Square's design and production workflow," said Tony Redhead, Principal at Red Square Design. "With Fireworks 2, workflow from design through production and coding has been tightly integrated, making the creation of Web pages even more streamlined."

New Features in Fireworks 2

Fireworks 2 has several new features for designing, **optimizing** and integrating Web site graphics. With **Fireworks 2**, Web designers can create graphics with sophisticated behaviors such as rollovers, then **export** those graphics and code in a format immediately recognized by the designer's HTML editor -- without the need for time-consuming modification. Integration with **Macromedia Dreamweaver 2** enables designers to easily launch the full set of **Fireworks** editing features, then return to Dreamweaver once graphics work is complete. For sitewide editing and rapid updates, **Fireworks 2** features graphic and text styles that can be shared among workgroups to ensure consistent design across a project, and a Find and Replace function that can globally update text, fonts, colors, and URLs. Along with an improved user interface and ease-of-use **optimizations**, **Fireworks 2** enables Web site creators to progress from concepts to completed Web graphics in one environment, without needing to switch tools. For more information or to download a free 30-day evaluation copy, visit <http://www.getfireworks.com>.

Pricing and Availability

Fireworks 2 is now available for Windows 95/98, Windows NT 4.0 or later, and MacOS 7.5.5 for an estimated street price of US \$199 in North America. Current registered Fireworks users can upgrade to Fireworks 2 for US \$129. Fireworks 2 can also be purchased as part of the Dreamweaver Fireworks Studio for US \$399. Fireworks 2 and the Dreamweaver Fireworks Studio can be purchased by calling 800-457-1774 or bought directly from Macromedia's Web site at <http://www.macromedia.com>. Macromedia is extending a special, limited time offer to customers who own the previous version of Fireworks plus any other Macromedia product: these customers can upgrade to Fireworks 2 through Macromedia's Web site for just US \$39 until June 15, 1999. To purchase or for more details, please visit <http://www.macromedia.com>. Interested parties outside North America should contact their local Macromedia distributor.

About Macromedia

Macromedia's mission is to add life to the Web. By providing its award-winning Web Publishing, Web Traffic, and Web Learning solutions to Web designers, consumers, and the enterprise, Macromedia is delivering a completely new generation of Internet tools and technologies designed to transform the Web experience. Headquartered in San Francisco, Macromedia has more than 500 employees worldwide and is available on the Internet at <http://www.macromedia.com>. Macromedia also hosts one of the most engaging entertainment sites on the Web at <http://www.shockrave.com>.

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12/7,K/7 (Item 6 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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05837470 Supplier Number: 50349098 (THIS IS THE FULLTEXT)

Macromedia Fireworks 1.0

Ozer, Jan
PC Magazine, v17, n19, p214
Nov, 1998

TEXT:

\$300 street. Macromedia Inc., San Francisco; 800-888-9335, 415-252-2000;
www.macromedia.com

Professional artists currently use a mix of illustration, image editing, animation, file conversion, and optimization programs to produce Web graphics. With Macromedia Fireworks, Macromedia is aiming to incorporate all of these functions into one program. Fireworks (\$300 street) is one of the most expensive programs in this roundup. But with a complete range of Web graphics tools and quality output, Fireworks also offers the most.

Like CorelXara, Fireworks encompasses both the bitmap and vector worlds. Vector objects, editable text, and multiple layer support make it easy to revise graphics. You can mix and match colors, gradients, textures, patterns, and transparencies as fill and line attributes. A line, for instance, can be formatted with an artistic style and texture to create natural-looking brushstrokes. You can also format objects with Live Effects to create bevels, embossing, glows, and drop shadows. Free-form tools make it easy to reshape paths, and Fireworks supports both Adobe Photoshop plug-ins and Macromedia Xtras.

Fireworks uses PNG as its native format, but it can import a wide variety of bitmapped and vector file formats, including layered PSD, Adobe Illustrator, CorelDraw, and **Macromedia** FreeHand. **Fireworks** performs all conversions, color reductions, and compression operations in the **Export** dialog box. It can display a split-screen preview with up to four variations of a file. If you haven't used internal paint tools or alpha channel masks to create transparency, you can choose a transparent color or alpha channel in the **Export** dialog box. If you find a perfect **optimization** setting, you can save it.

Fireworks produced good but not stellar GIF output on our tests. Though it offers adaptive and Web-safe palettes, the ability to snap colors to Web-safe values, and dithering control, its lack of a perceptual palette and color biasing put it one step behind the color reduction features offered by Adobe ImageReady and Digital Frontiers' HVS Toolkit Pro 2. Fireworks did, however, produce the best color-reduced PNG image of all the products we tested.

The JPEG options include progressive output, a quality setting, and a smoothing filter to reduce artifacts. Fireworks did not produce smaller JPEG files than competing programs, but its superior HTML support improves its efficiency. Using Fireworks' special URL layer, we were able to slice an image into areas. Each area can have its own export format, compression settings, and target URL, and Fireworks automatically generates the HTML table to reassemble the image in a browser. In addition, Fireworks generates both client- and server-side image maps.

Fireworks can also output quality animated GIFs, with options for a global palette, delta compression, and individual frame delays. A standard palette lets you view individual frames. To take advantage of tweening, you must convert an object to a symbol and then create an instance (or clone) of the symbol and modify specific attributes, such as rotation, scaling, opacity, or a Live Effect. Fireworks will automatically generate frames to interpolate between the two states of the symbol. You can also output an animation as a JavaScript rollover, in which each frame represents a different button state such as mouse-over or mouse-down.

Fireworks is not without its shortcomings. Designed to create low-resolution RGB images for screen display, it isn't suitable for high-resolution CMYK print output. And the interface could do a better job of distinguishing between raster and vector modes more clearly.

But no other Web graphics tool offers the breadth of features found in this product. If you plan to buy only one Web graphics package, get Fireworks.

Fireworks' URL layer lets you slice an image by drawing a rectangle. You can assign different optimization profiles to each slice. The URL layer displays hot spots as editable vector objects, shown here in light blue.

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05525088 Supplier Number: 48374096 (THIS IS THE FULLTEXT)

Macromedia Introduces Fireworks(TM)

PR Newswire, p0323SFTU054A

March 23, 1998

TEXT:

Next-Generation Tool Provides the First Unified Environment for Creating and

Producing Web Graphics

SAN FRANCISCO, March 10 /PRNewswire/ -- **Macromedia** (Nasdaq: MACR) today introduced **Fireworks**, the first production tool to provide a unified environment for creating, **optimizing** and producing high-quality

graphics for the Web. Engineered from the ground up to address the needs of professional Web designers, the new tool incorporates such advanced features as a visual **export** preview, complete control over compression and color palettes, automatic generation of button states and JavaScript rollovers, as well as text and effects which are editable all the time. **Fireworks** allows designers to create the most compact graphics and GIF animations in the fewest steps.

"Fireworks inaugurates a new category of Web graphics production tools," said Norm Meyrowitz, executive vice president and chief technical officer at Macromedia. "Just as Dreamweaver(TM) was the first visual Web authoring tool for professionals concerned about preserving the quality of their code and Flash(TM) pioneered delivery of compact vector-based Web animations, Fireworks is the first graphics tool which specifically addresses the issue of creating images for the Internet."

New Medium, New Tools

The current workflow for creating Web graphics is complex and time-consuming. To create a simple animated GIF banner, a designer uses several tools, laying out text in a vector illustration tool, compositing the text with images in a bitmap application, and then optimizing the size of the graphic in yet a third program. Adding image maps and animation requires additional utilities. Finally, the designer previews the image in a Web browser. Developers often undertake multiple iterations of this process, attempting to balance image size and quality.

Moreover, if the client requests a change, today's artist must start the process over since graphics are not readily editable in existing imaging tools. Fireworks solves both the workflow issue and the problem of editability by allowing designers to complete the entire process of creating and producing Web graphics in a single, unified environment-keeping everything editable, all the time.

Focused Product for Web Graphics Production

Throughout the **Fireworks** development cycle, **Macromedia** 's engineering team worked closely with an advisory board of professional Web designers to create a tool that addresses the real-world needs of Web graphics production. **Fireworks** provides Internet-focused innovations such as a visual **export** preview window, where designers can consult side-by-side views of a graphic while experimenting with different compression schemes and color palettes. To help designers balance image quality and bandwidth requirements, **Fireworks** displays file size and download time data, updating these dynamically as the user **optimizes** the graphic. Designers can also **optimize** and preview GIF animations in **Fireworks**, controlling properties such as frame rate and tempo. Compression settings can be saved as presets for use in subsequent **export** operations or in batch processes.

"Fireworks is the fastest way to produce virtually any type of image or GIF animation for Web pages, from simple ad banners to more complicated animated image maps," said Manabu Inada, art director for MTV.com. "The program is easy to use, and is loaded with special effects -- there is a lot of functionality just one click away."

Other Web-focused Fireworks features include the ability to "slice" an image for faster downloading, then export the component graphics plus the HTML table to re-assemble them in the viewer's browser. Fireworks provides a built-in "Image Map layer" to facilitate assignment of URL links, as well as a button generation feature which automatically produces up, down, rollover, and hit states for button graphics, along with the JavaScript code to control the button behavior. Color picking in Fireworks is tuned for Web designers, defaulting to the Web-safe palette.

Everything Editable, All the Time

In addition to its production strengths, Fireworks offers a rich environment for creating Web graphics. One key Fireworks innovation is the concept of "Live Effects." These include Web-staple drop shadows, bevels,

embosses, and glows. Unlike effects in traditional applications, Live Effects are properties of the object to which they are assigned -- if that object changes, the effect updates automatically. This highlights the revolutionary nature of Fireworks' graphics creation environment: in Fireworks, every object is editable, all the time. Editability extends even to properties such as image maps, which retain their associated URLs when reshaped or moved.

Fireworks further features a text window which provides capabilities expected of high-end illustration applications, including precise control over kerning, scaling, and leading as well as the ability to attach text and even paragraphs to paths. Text, like any Fireworks object, is always editable. Fireworks provides the shape creation and path editing tools found in vector illustration applications such as Macromedia FreeHand(TM), along with the ability to edit and composite bitmaps as in imaging applications. For example, artists can retouch images at a pixel level, clone them, and apply filters such as a Gaussian blur or an unsharp mask. They can brush with effects such as charcoal, pencil, and air brush, then precisely reshape those brush strokes using Bezier controls.

Familiar and Integrated

Users of current graphics applications will quickly be proficient with Fireworks, since its user interface adheres to the industry standards. Fireworks is designed to work as a companion application to Macromedia Dreamweaver -- Dreamweaver users will be able to launch Fireworks as an image editor from within the application. Fireworks is also tightly integrated with Macromedia FreeHand 8 and Adobe Photoshop.

The Macromedia Family

Fireworks is the latest Macromedia application created from the ground up for Web developers. The first, Macromedia Flash, has changed the look of the Web by enabling crisp, anti-aliased layouts and compact vector animations. The second, Macromedia Dreamweaver, is the first visual page design tool geared to professional Web developers. Dreamweaver provides the efficiency of a graphical environment while preserving the quality and editability of the underlying HTML code. And now, Fireworks presents the first unified environment for creating and producing GIF images and animations for the Web. Until now, designers have had to switch between a host of applications to create simple GIF graphics. Fireworks radically simplifies this workflow, allowing users to create the smallest possible images in the fewest steps, in a single tool.

Pricing and Availability

A pre-release beta version of Fireworks is currently available for download at no charge at (<http://www.getfireworks.com>). Fireworks for Windows 95, Windows NT and Macintosh PowerPC will be available Summer 1998 for an estimated street price of US \$299. It will be available for purchase online through Macromedia at www.macromall.com, directly from Macromedia at 800-457-1774, and through traditional software distribution channels. Interested parties outside North America should contact their local Macromedia distributor for pricing and availability. For the name of a Macromedia authorized reseller in your area, call 800-326-2128 or visit www.macromedia.com.

About Macromedia

Headquartered in San Francisco, Macromedia is a leading provider of software products, each designed to help make creativity and interactivity more possible in the new technology ecosystem. Macromedia's award-winning products for Windows, Macintosh and the Internet are available to business, education, and government customers worldwide. Additional information on Macromedia is available on the Internet at www.macromedia.com.

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415-512-0770, or ditap@schwartz-pr.com, for Macromedia/
/Web site: <http://www.macromedia.com> and <http://www.getfireworks.com>
and <http://www.macromall.com/>

(MACR)

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SU: PDT

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Producing Web Graphics

SAN FRANCISCO, March 10 /PRNewswire/ -- **Macromedia** (Nasdaq: MACR)
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"Fireworks is the fastest way to produce virtually any type...

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Web Graphics State of the Art

By: Sally Wiener Grotta

PC Magazine

Published Date: 06/27/2000

<http://www.truequery.com/truequery/search/articleDetail.jsp?doc=237040>

More often than not, we do judge a site by its cover. The moment you enter a Web site, you are faced with two choices: sticking around or quickly clicking away. And the first impression is going to be strongly influenced by how eye-catching and effective the site's graphics are. From logos and banners to navigation buttons and animations, the Web depends on graphics to convey information. So before you use a Web authoring product to lay out a page, you need to create the images you'll be using. In this story, we look at six programs that can help you produce these graphics from start to finish. Until recently, designing Web graphics required add-ons and specialized programs such as

GIF animators and optimizers to achieve the functionality necessary for creating images for the Web. But mainstream graphics programs, such as Adobe Photoshop 5.5 (a professional tool) and Ulead PhotoImpact 5 (a powerful tool for business users and enthusiasts), are beginning to catch up with current demands by integrating all the necessary tools. In fact, only two of the six products in this roundup (Macromedia **Fireworks** 3 and Satori WebFX 2000) were designed specifically for creating Web graphics.

So, what makes creating graphics for the Web different from creating any other kind of graphics? One critical difference is that Web graphics must look great but be very compact. A successful site must find a balance between visually appealing images and fast downloads. You accomplish this via optimization: the process of choosing the right file format-GIF, JPEG, or PNG-for your image and reducing the file size and number of colors without degrading image quality. When you have finally found the right balance for that one image, you'll want to save your settings so they can be used again.

Slicing your graphics is an ideal method for optimizing them. Slicing lets you optimize each portion of an image to the most efficient parameters independently. Surprisingly, CorelDraw 9 and Jasc Paint Shop Pro do not provide slicing tools.

Of course, being graphics programs, all of the packages in our roundup provide traditional tools for creating and editing images and text. Most of them also help you create JavaScript rollover buttons. And because Web graphics involve Web addresses-when creating image maps and rollovers, for instance-some programs provide special tools for managing URLs.

For lively Web graphics, we can't forget about animation. All the programs in this roundup claim to create animations, but we found in practice that only Adobe Photoshop's ImageReady and Macromedia **Fireworks** offer truly usable animation interfaces.

Traditionally, graphics professionals have been known to pick and choose their favorite tools. But with the category maturing so drastically, users can now find a single, complete solution for producing Web graphics from the first step to the last. Of course, you'll probably want to arm yourself with two or three additional tools. But you may not have to.

By integrating Adobe ImageReady (Adobe's Web graphics product) into the company's industry-standard image editor, Adobe proves you can teach an old dog new tricks. From creating GIF animations to optimizing images, Adobe Photoshop 5.5 is fully equipped to produce graphics for the Web.

Though Photoshop is powerful and full-featured, business users and nontechnical hobbyists will find Macromedia **Fireworks** 3 easier to dive into. Photoshop aficionados, however, will appreciate all the powerful new features they'll find in a familiar interface. Like all Adobe products, ImageReady uses tabbed palettes to organize related groups of functions. The Jump To command switches you instantly between Photoshop and ImageReady; it even preserves layers.

The integration of Photoshop and ImageReady is most evident during image optimization. In Photoshop, if you select the Save for Web function, you will be guided through ImageReady's Optimize palette, where you can use up to four LiveView panels to compare image quality and file sizes with various optimization settings. Photoshop also offers batch processing.

You can optimize and save images in all three Web-supported formats: GIF, JPEG, and PNG. ImageReady supports transparent, interlaced GIFs as well as standard and progressive JPEGs. Meanwhile, a convenient matte option helps you simulate transparency in JPEGs by matching a background color.

In both GIF and PNG-8 (8-bit) formats, you can specify colors from the standard 216-color Web-safe palette, or you can create an adaptive palette that snaps to the nearest Web-safe color. You can save color tables from optimized images to use with other images, load color tables created in other applications, or create a master palette to use with a group of GIF or PNG-8 images. And you can control dithering in both GIF and PNG-8 images manually or by using a Dithering Algorithm pop-up slider.

ImageReady has fair HTML support, exporting HTML as ImageReady or Adobe GoLive native code. You can create image maps for free-form shapes or slice images for improved optimization. Conveniently, slices can include rollover states.

Though not as polished as **Fireworks'** rollover feature, ImageReady's Rollover palette is very intuitive. To create rollovers, you use the Rollover palette to specify states, such as different effects based on a viewer's mouse action. But ImageReady really shines at creating animated GIFs, providing the best animation solution in this roundup. With an Animation palette that includes robust tweening, you can create animated GIFs in a matter of minutes.

That said, Photoshop has some deficits. Though text looks great, the text tools can't match those found in **Fireworks**, offering no way to cut and paste from documents into Photoshop. And despite its being the most powerful image editor in this roundup, for pure Web graphics you'll find less expensive products that are equally competent. Those already familiar with Photoshop, however, will be happy to know that the new version is willing and able to carry them over to this new medium.-Bill Harris and Jack Harris

Adobe Photoshop 5.5

\$600 street; upgrade, \$170. Adobe Systems Inc., San Jose, CA; 408-536-6000; www.adobe.com. ****

CorelDraw 9 Graphics Suite consists of CorelDraw for illustration and Corel's PhotoPaint 9 for image editing, as well as a variety of other graphics tools. A fairly powerful solution for traditional graphics work, the package's Web graphics production leaves a lot to be desired.

At times, Corel's interface is quite intuitive. Select a tool and a property bar above the work area displays the tool's options. You can set the swatch color palette to allow Web-safe colors only. And Options palettes can be set to float or to be docked as tabbed pages. But with two products that aren't well integrated, the interface can be frustrating.

Some of CorelDraw's Web tools are very handy. You can define an object as a URL hot spot easily, and a right mouse click lets you check links. The Link Manager keeps a list of all links and notes whether they are valid or broken.

The package's gradients and drop shadows are versatile, with editable nodes; control over layers and masks is state-of-the-art. Corel Script and Microsoft VBA provide powerful automation.

The suite is packed with clip art and various utilities, including CorelTrace, which ably converts bitmapped images into vector shapes. CorelDraw has powerful typographic controls, producing clean, legible type that remains editable even after being converted to HTML. There is no control, however, over the anti-aliasing color. And we found that some text exported to GIF had stray white pixels along the edges that were noticeable against dark backgrounds.

Creating animations with PhotoPaint is time-consuming and kludgy. The package cannot create JavaScript mouse rollovers, though it does have predefined Internet objects, such as radio buttons and pop-up menus. Another option lets you insert a placeholder for a Java applet.

The two programs have some confusing quirks. The GIF and JPEG exports are accessed differently in CorelDraw and PhotoPaint. CorelDraw's GIF export has minimal options, whereas Photo-Paint's GIF export and 8-bit optimization involve a deep, tabbed dialog with an editable palette, four kinds of dithering, and a batch option (but without download estimates or file size information).

HTML export is powerful but not comprehensive. The suite has no user-controlled image-slicing or image-mapping functions, though it can generate client- or server-side maps and save to an HTML table. A Publish to PDF wizard maintains hyperlinks and bookmarks.

Another wizard steps you through publishing to the Internet, with numerous options along the way. The invaluable Web Preflight checks for and helps correct problems such as overlapping Internet objects and text incompatibilities.

CorelDraw 9 Graphics Suite is a feature-rich environment for creating graphics, but it has not yet embraced the Web. And as easy as it is to navigate through and learn, its more advanced functions can be confusing.-SWG

CorelDraw 9 Graphics Suite

\$180 street. Corel Corp., Ottawa; 800-772-6735, 613-728-8200; www.corel.com. ***

Like Adobe PhotoShop 5.5, CorelDraw 9 Graphics Suite, and Ulead PhotoImpact 5, Jasc Paint Shop Pro 6.02 is an established image-editing program trying to adapt to today's new Web graphics world. Although some elements of Paint Shop are superior to those in other programs, the general implementation is uneven. What's more, the program lacks such key features as image slicing, HTML export, and the JavaScript rollover creation.

Paint Shop's interface makes innovative use of screen real estate. Key dialogs are toggled from icons and automatically opened with mouse rollovers. Paint Shop delivers a complete set of image-editing tools, including support for Photoshop plug-ins. The program's layer support is outstanding, with layer masks, blend modes, and transparency levels for all kinds of layers, including raster, vector, and even adjustment layers. The package has more special effects, but they are still raster-only. You have to rasterize all your vector shapes and text, therefore, before applying any effects.

Paint Shop's vector text is high-quality and fully legible down to 8 points in most typefaces. You can assign attributes to individual characters, and when you fit text to a curve, both the text and the curve remain fully editable. Both GIF and JPEG exports include zoomable previews and download estimates for several modem speeds. The GIF dialog includes matte color, transparency color, and partial transparency (a Jasc innovation) settings. You can set the number of colors you want for either export. Paint Shop also includes wizards for exporting GIFs and JPEGs. You can't save export settings, but all dialogs save the last settings used.

You can edit and save palettes. Paint Shop's optimization handled dithering well, with no significant banding. But its diffusion options are limited.

The package includes Animation Shop 2, a raster frame editor, for generating GIF animations. Animation Shop has decent transitions, frame effects, and text effects, as well as a useful banner wizard. Oddly, it cannot actually create animation frames. Each frame must be created in Paint Shop and then pulled into Animation Shop.

Despite some nice features, Paint Shop is an uneven and incomplete solution for creating Web graphics. Jasc promotes this as a full Web graphics solution, but we must disagree.-SWG

Jasc Paint Shop Pro 6.02

\$100 street. Jasc Software, Eden Prairie, MN; 800-622-2793, 612-934-8888; www.jasc.com. **

Macromedia designed **Fireworks** from the ground up for creating Web graphics, giving you all the necessary tools in a single interface. Though Adobe ImageReady has been admirably melded with Adobe Photoshop 5.5, Photoshop still can't match **Fireworks**' capabilities in terms of Web graphics.

Fireworks' interface resembles that of Adobe Photoshop, but with an updated slant towards the Web. You work in the Original view, and a Preview mode shows how an image will appear in a Web browser. Like similar features in Adobe Photoshop, **Fireworks**' 2-up and 4-up views let you experiment with and compare different optimization settings and file formats. **Fireworks** blurs the line between bitmap and vector behaviors. Its Live Effects-special effects that can be applied to both vector and raster objects-are stackable and reeditable. Object fills include highly creative and variable gradients. **Fireworks** has limited masking, however, with no layer masks or clipping paths.

Fireworks' automation and scripting features are sophisticated, letting you edit any command. The History palette, which is nonlinear, lets you select nonconsecutive commands to run or save as scripts. Among the batch-process commands are a file format conversion and a find-and-replace for colors, text, URLs, and fonts in separate files.

Text creation is flexible, with full support of Live Effects and smooth anti-aliasing with background colors. Though the text quality of very small fonts is not as sharp as in Photoshop, we found this to be the best text tool in the roundup.

Fireworks is the best program for creating and managing Web objects. Rollover effects, image slices, and hot spots are remarkably easy to create, with dedicated commands and tools. Creating client- and server-side image maps is also easy, and a URL library helps you to manage Web addresses.

Animation is frame-based, with no timelines or object paths. Although there are no transition effects, you can tween an object's opacity, transformation, and Live Effects. Layers may be distributed to frames.

No program offers you more control over optimizing your files and making them available to your Web authoring program (though Photoshop comes close). The **Fireworks** palettes are varied and customizable, and they can be saved. The Create Shared Palette command looks at the palettes of all the files in a specified folder and averages their settings into one new palette.

The zoomable Export preview is full-featured, with transparency and matte options. To export HTML, you can copy the code to your Windows clipboard or export it to a variety of editors, including Dreamweaver, GoLive, and Microsoft FrontPage. The Export wizard helps you choose the best file format, and it analyzes current format settings. It can even be set to shoot for a target file size.

In addition to the standalone version, **Fireworks** is sold as a well-integrated product with Macromedia Dreamweaver 3, a PC Magazine Editors' Choice for Web authoring (May 23). Whether you create sites with Dreamweaver or any other authoring product, you won't find a better solution for creating Web graphics.-SWG

Macromedia Fireworks 3

\$200 street. Macromedia Inc., San Francisco; 415-252-2000; www.macromedia.com. *****

The Web graphics market has become very competitive, with many established graphics programs incorporating Web-related features. Nevertheless, Spaceward Graphics decided to join the party with Satori WebFX 2000.

Positioned as a high-performance Web graphics tool for professionals and other advanced users, WebFX most closely resembles Macromedia **Fireworks** 3. The program provides the core functions of a Web graphics tool along with some advanced features, such as rotoscoping, photostitching, and the ability to edit large images without gobbling up lots of RAM. Although many of the features are interesting, they seem irrelevant to Web graphics production.

Images can be saved as GIF, JPEG, or PNG files. The Optimizer wizard lets you preview an image to see how various settings affect it; the wizard also lets you view file sizes and download times. Unfortunately, WebFX lets you view only one image at a time, which makes comparing various settings and file formats difficult. Although Satori supports both 8- and 24-bit PNG, you can't specify the setting during the export process.

WebFX's color palette supports optimized palettes, including one of Web-safe colors. You can create custom palettes either by using the color picker or by entering RGB/CMYK values. Advanced controls let you select adaptive palettes or snap to particular palettes, as well as control dithering.

HTML support is adequate but unbalanced. Creating image maps is one area where WebFX does a first-rate job. Its Web Options toolbar lets you create circular and polygonal hot spots and then assign corresponding URLs. This same toolbar also contains a pizza cutter icon that changes the cursor to a knife. Satori's slicing features let you select the format, compression setting, palette, and dithering value for each slice independently. Although the Image Slicing wizard generates the HTML table (which is typical of these products), we had difficulty at first getting the table to display properly. A second attempt, however, worked well. This sort of instability was typical of the product.

Creating rollovers in WebFX verges on the impossible. And creating simple GIF animations is also very difficult. In fact, Satori's online help recommends using a separate GIF animation product.

Plagued by deficiencies and instability, Satori WebFX 2000 has very little to recommend it.-BH and JH

Satori WebFX 2000

\$199 direct (download). Spaceward Graphics Ltd., Cambridge, UK; +44 1954-261-333; www.satoripaint.com. **

With Ulead PhotoImpact 5, you get a lot more than what you pay for. At a fraction of the prices of Adobe Photoshop 5.5 and Macromedia **Fireworks** 3, PhotoImpact offers a truckload of features that a beginner can use and that a professional will appreciate.

PhotoImpact is geared toward users who are not graphics professionals but are tech-savvy, with moderate to extensive computer experience. Translation: Everybody from home users to office Webmasters.

With this audience in mind, PhotoImpact provides extensive support and a comprehensive tutorial. PhotoImpact also contains a full arsenal of special effects, thousands of photos and clip-art images, and hundreds of Web components and textures.

But PhotoImpact's real strength lies in its simplicity. The EasyPalette provides a number of drag-and-drop presets and displays all of its galleries and libraries in a treelike listing. The EasyPalette also houses the Layer Manager, which automatically keeps track of all the objects in an image.

Although Adobe Photoshop 5.5 and Macromedia **Fireworks** 3 provide more thorough optimization tools, PhotoImpact's Image Optimizer is adequate for most purposes. You can preview two images side by side, and the History function lets you see one additional image at a different size. Images can be saved in GIF, JPEG, and PNG formats. Advanced options allow for transparency in all file formats, including, as with Photoshop, a simulated JPEG transparency.

PhotoImpact does offer the standard, Web-safe palette of 216 colors, but you cannot create an adaptive palette that snaps to the nearest Web-safe color. You can, however, create optimized palettes manually and then save them as PAL files to use again later.

Image slicing is flexible. You can use a knife tool, or a grid to create even slices. You can save segments in various formats and assign them URLs. The Image Map Assistant couldn't be simpler to use. You make a selection and then type the URL into the assistant. The Java Rollover Assistant is also one of the most intuitive we've seen.

For creating animations, PhotoImpact includes GIF Animator 3.0. Although this is a decent tool, it could be

improved. Tweening, for instance, is unnecessarily difficult. You must use sprites (individual elements or objects) and then enter x- and y-coordinates to specify movement.

Despite these limitations, PhotoImpact 5 is a great value for the average user who wants to create graphics for the Web.

Ulead PhotoImpact 5

\$80 street; upgrade, \$50. Ulead Systems Inc., Torrance, CA; 310-523-9393; www.ulead.com. ****

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SIMONE, LUISA
PC Magazine, v17, n19, p197
Nov 3, 1998.

ABSTRACT:

Of the 11 web graphics development software packages tested, Adobe Systems' \$200 ImageReady had the best color controls, Digital Frontier's \$130 HVS Toolkit Pro 2 created the highest-quality GIF and JPEG files, Equilibrium's \$400 DeBabelizer Pro 4.5 was the best at automating web graphics productions, and Macromedia's \$300 Fireworks was the best general-purpose tool for HTML, image editing and illustrating. ImageReady and DeBabelizer allow users to create scripts for such tasks as cropping images, correcting color, adding backgrounds and inserting text or logos. ImageReady also features a well-designed image preview and powerful animation features, and it is a great adjunct to the company's Photoshop image processing software. DeBabelizer Pro supports more than 100 raster formats, but it is not the best choice for optimizing images. HVS Toolkit Pro's two Photoshop plug-ins for GIF and JPEG files are floating windows with optimization controls and an image window toggling from source to optimized views. Fireworks supports vector objects, editable text and multiple layers to facilitate graphics revision. Its native format is PNG, but it imports PSD, Adobe Illustrator, CorelDraw, Macromedia FreeHand and other bitmapped and vector file formats.

TEXT:

imagine this magazine without any images. Sounds funny, doesn't it? Not long ago, many users took for granted that Web pages contained little more than text. At first, most images were merely ornamentation, so users could turn graphics off without missing much.

Today, however, that would be unthinkable for most users. Pictures now play an essential role on the Web. Like the images in a magazine, they contribute to the design and serve to convey information. In fact, you could argue that graphics are even more important to a Web page. Graphical elements such as buttons, image maps, and navigation bars help users to find their way around complex sites.

Image-editing programs, such as Adobe Photoshop, and illustration packages such as CorelDraw, can be used--are used--to create graphics for the Web ("Professional Graphics," September 22, 1998). But the Web introduces a new set of challenges that none of these print veterans fully addresses. First, the Web relies on its own file formats, which provide high compression without losing much image quality. Second, many of the tasks involved in preparing graphics for a site--especially a large site---can be repetitive. Finally, many Web graphics have to do more than just look good; they also have to do something. This may involve animation, or associated HTML code or JavaScript that turns a static image into a dynamic element.

To perform all these tasks, designers currently must resort to a

hodgepodge of graphics programs and utilities. But a new category, Web graphics software, is aiming to replace this Rube Goldberg procedure. For this story, we tested 11 Web graphics tools including standalone applications, Adobe Photoshop plug-ins, and even an online service. One product, Adobe ImageStyler, didn't ship in time for our story but should be available by the time you read this (see Trends/Software in this issue).

What we discovered is that no single Web graphics program yet offers the complete package. In fact, we found a lot of variation not only in the quality of their optimized images, but also in the features they offer. Adobe ImageReady offers the best color controls, but Digital Frontiers' HVS Toolkit Pro delivers the highest-quality GIF and JPEG files. Equilibrium's DeBabelizer Pro does the best job of taking menial work off your hands, but only Macromedia Fireworks comes close to covering all the bases with excellent HTML support and a good complement of image-editing and illustration tools.

There are many different strategies for delivering images on the Web. The most common strategy involves converting an image to a format that is supported by both Microsoft Internet Explorer and Netscape Navigator. Today, that means either GIF or JPEG. A third format, PNG, is also gaining currency, but only Internet Explorer currently supports it. Most of the programs we tested can read and write all three formats. Our tests consisted of three real-world projects: a GIF logo, a JPEG image with buttons, and a PNG banner. For all three projects, we used high-quality images from the PhotoSpin collection (888-246-1313, www.photospin.com).

When you convert an image to GIF, the program compresses the file by reducing the number of colors in the image from 24-bit (millions of colors) to 8-bit (256 colors or less). To do this without sacrificing the quality of the image, you need robust color palette controls. Because JPEG images are 24-bit, you don't need to worry about all these color palette options. Instead, most programs let you choose a balance between file size and quality. In addition to still images, most Web graphics programs can also export animated GIFs.

No matter what type of file you want to create, you need an interactive preview so you can compare the source file with one or more optimized versions. The better programs also report the file size and estimated download time.

Web graphics involves much more than file optimization. When you're working on a large site, automation is a boon. In ImageReady and DeBabelizer, you can create scripts for common tasks such as cropping images, correcting color, adding backgrounds, or even inserting text or logos.

Converting one image or a batch of images into a Web format is only half the battle. You also need to incorporate the images into Web pages. Some of the programs we tested can automatically generate HTML for special types of graphics. For instance, you can slice a single, large image into pieces and export each as a separate file. The program automatically generates an HTML rubble to reassemble the image in a Web browser. Other HTML-related features include image maps, as well as JavaScript rollovers--animated graphics that change their appearance as you move the mouse across them or click on them.

As a category, Web graphics software is still in its infancy and still feeling its way toward a feature set. Though no single tool yet offers everything we'd like to see, we were impressed with the category as a whole. Better-looking and more efficient Web sites can't be far behind.

Adobe ImageReady 1.0

\$200 street. Adobe Systems Inc., San Jose, CA; 800-685-3659, 408-536-6000; www.adobe.com; 500 at www.pcmag.com/infolink.

* In the murky category of Web graphics software, Adobe ImageReady stands out as a tool with a clear focus: optimizing images. ImageReady doesn't offer the breadth of features found in Macromedia Fireworks, for example, but easily makes up for that with its depth. The program's

extensive color control, intelligently designed image preview, and powerful automation features make it a top-notch optimization tool.

ImageReady picks up Web graphics preparation where Adobe Photoshop leaves off. The tabbed palette interface looks and feels like Photoshop and Adobe Illustrator, and ImageReady shares Photoshop's native PSD format. It maintains transparent layers, and you can edit both the copy and typographic attributes of a text layer. Unfortunately, Photoshop 5.0's Layer Effects, such as drop shadows and bevels, are not in this version.

When converting images to GIF, you can control the amount of dither, specify the number of colors in a palette, and even fake anti-aliasing for a transparent GIF placed against a solid, untextured background. You can also edit color palettes directly, adding or removing colors, locking colors to prevent them from shifting when you change palettes, and "snapping" colors to their closest Web-safe equivalents. And ImageReady can bias a palette in favor of a particular area of an image or in favor of one image in a batch.

In addition to Web-safe and adaptive palettes, ImageReady offers selective and perceptual palettes. The latter produced excellent results on our test GIF image, which was significantly better than the image produced by Equilibrium's DeBabelizer Pro 4.5, and second only to Digital Frontiers' HVS Toolkit Pro 2. ImageReady's JPEG output was satisfactory, but we'd like to see smoothing and subsampling options. A step ahead of browsers, ImageReady boasts extensive PNG support, including true alpha channel transparency for 24-bit PNG, and indexed anti-aliasing for 8-bit PNG files. We did observe one significant shortcoming on our tests: ImageReady failed to read any alpha channels in imported images.

The product's preview reports file size and estimated download time. You can tab between the original picture and the optimized version, or drag the optimized tab to the workspace to view the images side by side. The zoom and pan tools are useful when searching for artifacts. More impressively, ImageReady can simulate 256-color graphics mode in order to show you how adaptive colors will dither when viewed within a browser on low-end systems.

ImageReady generates HTML code for image tags, client-side (not serverside) image maps, and tables for sliced images. But you can't, for example, choose different output options for slices of an image, nor can ImageReady create JavaScript rollovers. In addition, URLs are assigned to an entire layer (not a selection), making it difficult to manage large numbers of links.

Like Photoshop, ImageReady offers multiple undos through the History palette, and the Actions palette lets you record and play back actions on a new image. New with ImageReady are the easy-to-use Droplets, which let you save optimization scripts as desktop shortcuts.

ImageReady can also produce animated GIFs, but the animation features are closely tied to the layers in the PSD file format. ImageReady can tween any parameters (such as position) that are stored with the layer data, but if you edit an object on one layer, those changes aren't automatically interpolated across frames.

ImageReady should appeal to a wide range of professional users, from designers to Web masters, who already have image editing and illustration programs, but need a powerful optimization tool. --Luisa Simone

CorelXara 2.0

\$150 street. Corel Corp., Ottawa; 800-772-6735, 613-728-3733;
www.corel.com; 501 at www.pcmag.com/infolink.

Unlike most of the programs in this roundup, which are designed primarily for working with bitmap images, CorelXara is, at heart, an illustration tool for creating and editing vector graphics. Like its sibling program, CorelDraw, CorelXara includes a full complement of Bezier drawing tools and formatting options. Corel has broadened the program's features, however, to position it as a Web graphics tool. Although CorelXara could quickly become a contender, it is not yet ready to take on

market heavyweights such as Adobe ImageReady and Macromedia Fireworks.

The most obvious manifestation of CorelXara's new role is a special Export dialog box for GIF, JPEG, and PNG files. The Export dialog box displays side-by-side previews of the color-reduced or compressed file. You can switch between the two versions, adjust parameters, and inspect the result with zoom or pan tools until you find the best combination of quality and file size.

CorelXara reports the resulting file size in the Export dialog box. To see estimated download times, however, you must preview the image in your Web browser. This isn't really a problem because the command is located right in the Export dialog box. And the browser preview offers advantages: It lists download times for a variety of connection speeds, and it lets you test the validity of hyperlinks.

CorelXara offers robust but not advanced image-processing options. It supports 8-bit transparency and interlacing, offers both a Web-safe palette and an optimized palette, and lets you specify the number of colors. But it won't let you import a custom palette, bias colors, or color-reduce using a perceptual palette. You can turn dithering on or off, but you can't moderate it. Similarly, the JPEG output does not support subsampling.

Considering CorelXara's role as a vector (rather than raster) graphics application, we thought it performed acceptably with our admittedly difficult test files. Though the program can import a wide variety of file types, it stumbled on the alpha channels in our test TIFF file. To achieve the target GIF file size we had to compromise image quality, by reducing to only 28 colors or by turning off dither. But the JPEG output kept pace with the field in both quality and file size. The big surprise was our 8-bit PNG banner, which we were able to reduce to a compact 100 colors without sacrificing image quality.

In addition to still images, CorelXara can generate animated GIF files. Its drawing features such as interactive gradient fills and graduated transparency, support for Adobe Photoshop plug-ins and preset envelope distortions, let you achieve some spectacular effects. But you have to do it manually: CorelXara offers no tweening.

CorelXara earns a mixed review for its HTML support. It can write the HTML command to insert an image to the Clipboard or generate the HTML code for a client-side image map--but not both, leaving us to hand-code the proper tags. Furthermore, CorelXara does not offer advanced HTML functions, such as JavaScript rollovers or sliced images.

CorelXara's real strength lies in its ability to produce a proprietary vector format suitable for the Internet. Its Web format offers small file sizes (and fast downloads), gives the viewer zooming controls of up to 25,000 percent magnification, and incorporates URLs. Like other proprietary formats, CorelXara Web requires a browser plug-in, and you'll have to configure your Web server to identify CorelXara Web as a new MIME type.

As an optimization utility, CorelXara is still missing a few features. But its powerful vector illustration tools, coupled with solid bitmap output options, make it a promising player in the Web graphics arena.--LS

DeBabelizer Pro 4.5

\$400 street. Equilibrium, Sausalito, CA; 800-524-8651, 415-332-4343; www.equilibrium.com; 502 at www.pcmag.com/infolink.

* A production tool streamlines basic, repetitive image editing chores, and supports more than 100 raster formats, Equilibrium's DeBabelizer Pro is geared toward high-volume graphics production. DeBabelizer is unquestionably a highly efficient utility with the most robust automation features of any program reviewed here. And given its broad focus, it's no surprise that it ignores some Web-specific features such as image slicing and JavaScript rollovers. What is surprising is that, on our tests, other packages were more adept at optimizing images.

DeBabelizer's highly automated approach to file conversion is based

on scripted actions and batch lists which, despite their power, are surprisingly easy to use. The easiest way to create a script is to perform the edits you want on a sample image. DeBabelizer logs everything you do in the background so, in order to create a script, you just drag and drop the series of steps from the log window to a New Script window. DeBabelizer also includes a set of ready-made scripts for common tasks.

A unique interface convention called the ActionArrow, which appears on the title bar of each window, lets you drop data from one window onto another window to execute commands. For example, you can drop a script ActionArrow onto a batch list--a list of files you want to work on--to process multiple images automatically. In the same way, you can create an optimized palette by dragging a picture's ActionArrow to a palette window. This is especially useful when creating a SuperPalette for a group of images, because you can bias color selection by repeatedly dragging a particular image onto the palette window.

When creating 8-bit GIF and PNG files, DeBabelizer lets you set a dither percentage or create transparent backgrounds from a specified color or alpha channel mask. But our testing revealed several curious shortcomings, the most serious being DeBabelizer's limited preview capabilities. You must first create and then apply a palette in order to determine if it contains the right number of colors. If it doesn't, your only recourse is the Undo command. Likewise, you must save a JPEG image and then reopen it in order to view the compressed version. In addition, DeBabelizer doesn't anti-alias the edges of a transparent GIF file against a color background. And it crashed when we tried to import a TIFF file with two alpha channels, because it supports up to 32-bit only.

On our tests, DeBabelizer produced a quality GIF image but failed to meet our target size. Our JPEG image exhibited some artifacts, and PNG output was poor.

In keeping with its mission as a production tool, DeBabelizer's editing tools are tailored to common prep tasks, such as trimming a picture or correcting a color cast. Instead of cropping images interactively, DeBabelizer lets you trim edges based on selected parameters, such as black edges, a common problem when scanning film. Likewise, you can add an image such as a company logo or text to a batch of images by specifying a relative location.

DeBabelizer can compile a series of still image or movie files into a GIF animation, complete with a global palette, global frame rate, and frame-differencing compression. You can even use Adobe Photoshop plug-in filters to interpolate special effects across a series of animation frames.

DeBabelizer can parse an HTML file in order to extract image filenames, and batch-optimize them. But it doesn't write any HTML code for image maps. Nor does it support image slicing and JavaScript rollovers.

Unique automation features make DeBabelizer invaluable in high-volume production environments. But for all other Web graphics tasks, you'll find better and less costly tools reviewed here. --LS

Emblaze WebCharger 1.0, Emblaze HotSpots

\$100 street each. Ceo Interactive, Woodland Hills, CA; 800-576-7751, 818-703-8436; www.emblaze.com; 503 at www.pcmag.com/infolink.

* Geo Interactive offers two Web graphics products, Emblaze WebCharger and Emblaze HotSpots, that separately address the issues of compression and interactivity, respectively. But even in their fields of specialization, these narrowly focused tools can't match the other products reviewed here.

WebCharger and HotSpots both employ a fixed-resolution interface, which looks great at 640 by 480 pixels but becomes unreadable at higher screen resolutions. We tested Version 1.0 of both programs under Windows 95, because they are not compatible with Windows 98 or NT. Ceo is aware of this problem, and promises to have a new version of WebCharger (Version 1.1) available by the time you read this.

WebCharger imports a limited number of file formats and outputs only

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JPEG-compatible files. According to Ceo, WebCharger encodes graphics files using a slightly different method than the JPEG standard in an effort to produce smaller, higher-quality images. WebCharger accomplishes this feat with unique selection tools that let you define and protect areas of a picture. The compression level that you specify is applied at full strength to unprotected areas, and at partial strength to protected areas. On our tests, this procedure let us maintain legible text and sharp details but did not produce appreciably smaller JPEG files than those of other programs.

This feature, however, is compromised by a flawed interface. For example, the program doesn't preview the compression on screen; it performs compression in real time and discards data. If you compress an image too much, you can't simply increase its quality setting. Instead, you must reload the file and start from scratch.

Furthermore, you cannot associate a particular compression level with an individual selection area. Instead, you must draw selection areas and compress the picture iteratively. For example, you can protect an area at full quality, compress to 80-percent quality, draw additional protection areas at 80-percent quality, compress to 60-percent quality, and so on.

Novice users will appreciate the simple interface, where changing any one of the compression parameters (file size, quality, or download time) automatically adjusts the other two. Mid-level and advanced users, however, will not tolerate the lack of control. For example, protected areas are not completely off-limits and continue to be compressed (and degraded) as you decrease the file size. Likewise, to improve compression ratios, WebCharger applies a very strong smoothing filter (with no end-user adjustment allowed), which can result in fuzzy images. Nor does the program offer progressive JPEG output or batch processing of any kind.

Emblaze HotSpots allows you to add URL links and rollover effects to Web graphics. Like a multimedia authoring tool, the program has dialog-box options that let you assign predetermined behaviors to hot spots. You can display a different button picture, play a sound, or change the cursor shape on mouse-over or mouse-click.

HotSpots does not generate straightforward image maps or JavaScript code. Instead, it produces an HTML file with 14K of Java classes, which must be downloaded with the files to preserve the interactivity. Also, HotSpots contains no optimization functions whatsoever; it does not compress or slice images.

WebCharger's approach to JPEG compression is innovative. But both WebCharger and HotSpots are essentially one-trick ponies that do not offer the features or ease of use found in other comparably priced Web graphics tools in this roundup. --LS

GIF Wizard

Pricing varies by service. Raspberry Hill Publishing Inc., Newton, NJ; 973-579-7994; www.gifwizard.com; 504 at www.pcmag.com/infolink.

* The only online compression service in our roundup, Raspberry Hill's GIF Wizard is ideal for nontechnical users and Webmasters seeking third-party monitoring of the compression efficiency of images on their sites. But those seeking top-quality still images should look elsewhere: GIF Wizard received mediocre scores on our quality comparisons.

Raspberry Hill's services start at \$14.95 for 25 images, or \$29 per month or \$79 per year for a single Web site. Weekly or monthly site checks cost more, or you can encode single test images for less than \$1 by purchasing a token from Raspberry Hill.

After paying the fee, you log on to GIF Wizard and submit images or GIF animations from disk, or specify a URL. For all files, you can specify your page's background color, resize to a new resolution, and select from five levels of smoothing filters. For JPEG images, you choose between standard and progressive.

For GIF or animated GIF files, you can output with best-fit colors, a Web-safe palette, or dithered, browser-safe colors (for low-resolution

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displays). You can't create a master palette for a group of images, though. If you input interlaced GIFs, the service will output interlaced GIFs; otherwise, they're noninterlaced.

If you submit a single file, GIF Wizard returns a page with your source image and several images encoded to progressively lower palette colors (GIF) or quality levels (JPEG). If you don't meet your quality or size targets, you can request additional samples. Once you're satisfied, you download the image using your browser's normal image-save capabilities. If you submit a URL, the service returns a listing of all images on your site, each containing an estimate of the potential file-size savings.

On our quality comparison tests, GIF Wizard produced good GIF images but only fair JPEG images. The quality of animated GIF output was excellent, however, with none of the dithering that marred the output of other products. This makes GIF Wizard worth a look for all heavy users of animated GIFs.

Unless your Web site was created by the most compression-savvy designer, it probably contains some images that are unnecessarily large. Standalone programs such as Adobe ImageReady and Macromedia Fireworks offer more control and better output quality. But for quick and easy file compression, GIF Wizard is an attractive alternative. --Jan Ozer

HVS Toolkit Pro 2

\$130 street. Digital Frontiers, Evanston, IL; 847-328-0880;
www.digfrontiers.com; 505 at www.pcmag.com/infolink.

* With its obscure controls, such as detail and strength prefilters, Digital Frontiers' HVS Toolkit Pro is a dream come true for those inclined to tinker with graphics for hours on end. HVS, which consists of two Photoshop plug-ins, isn't the easiest tool to use, but it did produce excellent images in both GIF and JPEG tests.

Accessed from either Photoshop's filter menu or its export screen, both plug-ins are floating windows with optimization controls and a single image window that toggles between source and optimized views. Unfortunately, you can't zoom in on the image preview, so getting everything right takes some trial and error.

Both tools can be automated with Photoshop Actions. ColorGIF can apply GIF compression to images directly or export to a new GIF file, whereas the JPEG plug-in can only export a new file.

ColorGIF can apply different compression parameters to different image regions or Photoshop layers and allows variable dithering levels and thresholding, which combines colors at the upper and lower levels of the color spectrum. You can choose the default Windows or Macintosh palettes, a Web-safe palette, or custom palettes based on one or more images.

The options for compressing JPEGs are numerous. HVS JPEG offers progressive and standard encoding, prefiltering, and several choices of quantization tables. Even when making the most minor adjustments to these settings, we sometimes observed significant jumps in the file size, which made it tough to hit the target file size on our tests. We also saw up to a 5K difference between the estimated file size and the actual size of the file HVS JPEG produced.

HVS was one of the slower programs we tested, often requiring up to 15 seconds longer than other products to generate a preview of a GIF image. But these are relatively minor quibbles, and we found that the output quality was well worth the wait. HVS Toolkit was the only product that yielded excellent results on both our GIF and JPEG tests. Even the smallest GIF (9K) still looked better than larger files produced by competitors. And when we ratcheted the JPEG file down to a svelte 35K, it was still entirely acceptable.

HVS lacks many features found in other programs here. But it's all you want is the absolute best GIF and JPEG optimization, and you don't mind rolling up your sleeves a bit, HVS is the best choice. --JO

Macromedia Fireworks 1.0

\$300 street. Macromedia Inc., San Francisco; 800-888-9335,

415-252-2000; www.macromedia.com; 506 at www.pcmag.com/infolink.

Professional artists currently use a mix of illustration, image editing, animation, file conversion, and optimization programs to produce Web graphics. With Macromedia Fireworks, Macromedia is aiming to incorporate all of these functions into one program. Fireworks (\$300 street) is one of the most expensive programs in this roundup. But with a complete range of Web graphics tools and quality output, Fireworks also offers the most.

Like CorelXara, Fireworks encompasses both the bitmap and vector worlds. Vector objects, editable text, and multiple layer support make it easy to revise graphics. You can mix and match colors, gradients, textures, patterns, and transparencies as fill and line attributes. A line, for instance, can be formatted with an artistic style and texture to create natural-looking brushstrokes. You can also format objects with Live Effects to create bevels, embossing, glows, and drop shadows. Free-form tools make it easy to reshape paths, and Fireworks supports both Adobe Photoshop plug-ins and Macromedia Xtras.

Fireworks uses PNG as its native format, but it can import a wide variety of bitmapped and vector file formats, including layered PSD, Adobe Illustrator, CorelDraw, and **Macromedia** FreeHand. **Fireworks** performs all conversions, color reductions, and compression operations in the **Export** dialog box. It can display a split-screen preview with up to four variations of a file. If you haven't used internal paint tools or alpha channel masks to create transparency, you can choose a transparent color or alpha channel in the **Export** dialog box. If you find a perfect **optimization** setting, you can save it.

Fireworks produced good but not stellar GIF output on our tests. Though it offers adaptive and Web-safe palettes, the ability to snap colors to Web-safe values, and dithering control, its lack of a perceptual palette and color biasing put it one step behind the color reduction features offered by Adobe ImageReady and Digital Frontiers' HVS Toolkit Pro 2. Fireworks did, however, produce the best color-reduced PNG image of all the products we tested.

The JPEG options include progressive output, a quality setting, and a smoothing filter to reduce artifacts. Fireworks did not produce smaller JPEG files than competing programs, but its superior HTML support improves its efficiency. Using Fireworks' special URL layer, we were able to slice an image into areas. Each area can have its own export format, compression settings, and target URL, and Fireworks automatically generates the HTML table to reassemble the image in a browser. In addition, Fireworks generates both client- and server-side image maps.

Fireworks can also output quality animated GIFs, with options for a global palette, delta compression, and individual frame delays. A standard palette lets you view individual frames. To take advantage of tweening, you must convert an object to a symbol and then create an instance (or clone) of the symbol and modify specific attributes, such as rotation, scaling, opacity, or a Live Effect. Fireworks will automatically generate frames to interpolate between the two states of the symbol. You can also output an animation as a JavaScript rollover, in which each frame represents a different button state such as mouse-over or mouse-down.

Fireworks is not without its shortcomings. Designed to create low-resolution RGB images for screen display, it isn't suitable for high-resolution CMYK print output. And the interface could do a better job of distinguishing between raster and vector modes more clearly.

But no other Web graphics tool offers the breadth of features found in this product. If you plan to buy only one Web graphics package, get Fireworks. --LS

MAS Media Utilities 1.20b

\$100 street. Paul Mace Software Inc., Ashland, OR; 800-944-0191, 541-488-2322; www.pmac.com; 507 at www.pcmag.com/infolink.

* MAS Media Utilities is a graphics conversion and image-capture

program that places emphasis on multimedia and animation formats. Within its proclaimed area of specialization, MAS Media offers several unique and powerful functions. But when it comes to Web optimization, MAS Media lacks what we consider to be essential functions.

Designed around a tabbed interface that switches you between discrete tasks or between different options for each task, all of the program's commands are in plain view. This intuitive-looking interface doesn't simplify tasks, however. Essentially, the tabbed interface prevents you from performing multiple tasks on the same file. For example, during testing we could not convert a 24-bit BMP file to a color-reduced GIF file in a single step. Instead, we were forced to convert to a 256-color GIF, then switch to a different tab, import the GIF file we just created, and change the bit depth. Moreover, the tabbed interface makes it impossible to perform more than one operation on a group of files at any given time.

The Capture module lets you save sequential screen shots that are written directly to a movie format, such as animated GIF or AVI. Our tests showed that this function is highly dependent on system resources and the size of the window targeted for capture. Nevertheless, we successfully produced an AVI movie, complete with a captured cursor, that was suitable for use as a multimedia tutorial.

MAS Media can also convert between a number of different motion formats, including AVI, GIF, FLC, and ICO. Both still-image and motion formats can be compiled into a movie. We produced an animated GIF file from a series of imported images, with a global palette and differing delays for each frame.

MAS Media Utilities falls short, however, in areas more closely related to Web graphics production. It lacks support for many common still-image formats including TIFF, and it doesn't export JPEG images. It does not dither colors or create transparent areas in 8-bit GIF files (though it will preserve transparency in an imported GIF). And MAS Media does not output any HTML to help you incorporate images into Web pages.

We were also concerned by the lack of an interactive preview. Even after you have converted a file, you must reload it to view it. Furthermore, you must view it in a separate window that cannot be zoomed.

Though MAS Media offers a Super Palette function, it can create only a common palette from already-indexed files, and it cannot bias the color selection in any way. By default, MAS Media creates an adaptive palette when optimizing images. You can apply a Web-safe color palette directly from the Color Palette tab only after you've already optimized the image, not from the initial file conversion dialog box.

Furthermore, the version that we tested offered very few options for color reduction (we could choose between 2, 16, and 256 colors) and did not support the PNG. As a result, MAS Media performed poorly on our test images. For example, the GIF image did not meet our target file size and also exhibited noticeable posterization.

After we'd completed our story, Paul Mace Software released an update that addresses some of the program's weaknesses. Version 1.21 supports PNG, lets you select transparency, and provides more choices for reducing the number of colors in an indexed image.

Even with these important enhancements, MAS Media can't match the features or ease of use of other Web graphics programs reviewed here. --LS
NetGraphics Studio2

\$70 street; Hemera Technologies, Quebec, Canada; 819-772-8200;
www.hemera.com; 508 at www.pcmag.com/infolink.

* Seeking to bring some simplicity to the complex world of Web graphics, Hemera Technologies' NetGraphics Studio2 emphasizes ease of use. NetGraphics Optimizer, one of the two components that make up NetGraphics, is based entirely on a wizard that walks users through the process of prepping images for the Web. This makes NetGraphics ideal for graphics novices, but more experienced designers will want a more flexible and powerful solution.

NetGraphics Optimizer always suggests the best output format, JPEG or GIF, depending upon image content. Each screen focuses on a single operation, such as resizing or color-reducing a picture. And at any point it is possible to backtrack and change compression parameters.

Although NetGraphics Optimizer is clearly targeted at nonprofessionals, it offers several powerful features. Our favorites include the ability to import a wide range of file formats, use imported alpha channel masks to create transparent GIFs, keep track of both file size and download time while changing compression parameters, and preview an image in your Web browser. NetGraphics can even simulate a download to demonstrate how quickly the image will load on an end user's machine.

A particularly advanced feature is the program's ability to anti-alias the edge of a transparent GIF picture against a solid-color or textured background. Once again, NetGraphics keeps it simple. To smooth the edges, just point at the image tile used as the background, any solid color in the color palette, or the HTML file containing the background.

However, there are some features that need refinement. Though you can toggle between a view of the original image and a preview of the compressed file, you can't view them side by side. Nor can you zoom in for a closer look at potential artifacts. NetGraphics has no internal tools to generate transparency based on selection areas or palette color slots. Nor will it let you specify the dithering amount when color-reducing a file for GIF output; dithering's either on or off. And while it is convenient to drag and drop a compressed file from the Optimizer window into an HTML editor, we still wish the program generated HTML code for you.

In many cases these limitations are deliberate in order to maintain the program's ease of use. For example, NetGraphics supports only adaptive palettes when color-reducing a picture, because this produces the closest match to the original. But it doesn't help much if you need to make multiple images look consistent.

We found NetGraphics' JPEG files to be within industry standards for both file size and quality. In order to reach our target GIF file size, however, we had to reduce the logo image to only 23 colors or turn off dithering. This left us with a difficult choice between a poor color match or serious posterization.

With the exception of cropping, resizing, and mirror functions, NetGraphics Optimizer offers no image-editing tools. However, its companion program, NetGraphics Gallery, can help dress up a Web site. It consists of a collection of 2,000 "photo-objects" (photo-realistic pieces of clip art) and PhotoFonts, a type program that fills TrueType outlines with a photographic image. All of the pictures in the photo-object collection come complete with transparent (alpha channel) backgrounds. The gallery is augmented by a powerful but easy-to-use search engine that supports Boolean searches.

NetGraphics Studio2 doesn't break any new technological ground, but it succeeds in making image optimization so easy you don't need to know the difference between a GIF and a JPEG. --LS

SPG Web Tools

\$199 list. SPG Inc., Miami; 305-362-6602; www.spgnet.com; 509 at www.pcmag.com/infolink.

* Although it is an add-on to Adobe Photoshop, SPG Web Tools is a versatile, powerful program in its own right. Web Tools offers advanced features such as image slicing and remote image management, excellent automation, and the highest level of Adobe Photoshop integration that we've seen. Web Tools' animated GIF files are among the best in the roundup, but other programs produce better GIF and JPEG images, and Web Tools lacks support for PNG export.

You access Web Saver and other Web Tools utilities from Photoshop's filter menu, launching a floating screen with a cumbersome preview window and encoding controls. You can continue to work in Photoshop while running any of the plug-ins, so Web Tools feels almost like a native feature of

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Photoshop; by contrast, Digital Frontiers' HVS Toolkit Pro 2 takes over when you activate it. Being able to configure the background of all tools to simulate the color or wallpaper of a target Web page is also useful.

When creating GIF files, you can set the bit depth, but you can't specify the exact number of colors, which makes it difficult to compress images with precision. Although you can load and save a palette file, you can't create a master palette for multiple images. The program does offer a useful collection of canned palette options, though, along with the normal dither choices of diffusion, pattern, or none. JPEG encoding options include quality-level settings on a scale of 1 to 100, smoothing, and progressive encoding.

Both GIF and JPEG encoding can be batch-processed or run in semiautomatic mode, in which the program sequentially loads files, allowing you to select encoding parameters for each file. Encoding quality was a touch above average, and Web Tools received a good rating in both GIF and JPEG jury tests. The program doesn't currently support the PNG format, but SPG plans to add this feature in the near future.

Web Tools' animator doesn't let you set the number of colors in an animated GIF, forcing you to drag and drop files between the animator and GIF Web Saver, which is inconvenient. But the program offers a unique, lossy save option that produces very small animated GIF files without significantly degrading quality. It also supports transitions and flare animation.

Relatively expensive but extremely functional, Web Tools has three key strengths: Photoshop integration, automation, and highly compact GIF animation. But those seeking a plug-in to wring the last bit of quality from their GIF and JPEG files should look to Digital Frontiers' HVS Toolkit Pro 2 instead. --JO

Ulead WebRazor 1.01

\$89 download. Ulead Systems, Torrance, CA; 800-858-5323, 310-523-9393; www.ulead.com; 510 at www.pcmag.com/infolink.

* A suite of standalone utilities and plug-ins for Adobe Photoshop, Ulead WebRazor 1.01 includes a full-featured optimization tool--Ulead SmartSaver 3.0--as well as an excellent GIF animator and other utilities. WebRazor offers one of the best interfaces of the programs we tested, but it is missing some features and its GIF and PNG output is subpar.

In addition to SmartSaver and GIF Animator, WebRazor includes Ulead Photo Viewer 4.0, Ulead Photo Explorer 4.2, and Ulead Web. Plugins 1.0. All of the components offer a highly usable interface.

SmartSaver displays the source and an optimized preview in side-by-side windows. When you're experimenting with optimization parameters, the preview provides real-time updates. SmartSaver also allows you to zoom and move around an image, to optimize portions of it.

Used as a standalone applet, SmartSaver can batch-process files, but not from within Photoshop. In Photoshop, however, it can compress the same file sequentially, dropping quality or palette colors successively until you reach the optimal balance.

SmartSaver outputs transparent and interlaced GIF files and can blend the output into a background image or color. You can use a Web-safe palette or an existing palette file, or you can let SmartSaver create an optimal palette that can be saved. But you can't create a master palette for multiple files, nor can you edit palette files. You can choose among pattern, diffusion, or no dithering, as well as smoothing. SmartSaver provides similar options for 8-bit and 24-bit PNG export.

JPEG controls include three modes of smoothing (standard, standard optimized, and progressive), a quality-versus-compression slider bar, and the option to sub-sample to YUV color spaces, an alternative to RGB used in video.

In our comparison tests, SmartSaver's GIF output was highly dithered, rating only fair. PNG output was also only fair. However, the program's JPEG output rivals that of Digital Frontiers' HVS Toolkit Pro, the leader

in this category.

The included GIF Animator is fast and simple, working with sequential bitmaps or video files. During optimization, the program creates a superpalette for the selected number of colors and eliminates redundant pixels. WebRazor is a capable suite that deserves high marks for usability, but other products provide better color indexing and higher-quality GIF output. --JO

Web Graphics Software

POWER	Adobe ImageReady 1.0	CorelXara 2.0
Optimization	Excellent	Good
Automation	Excellent	N/A
HTML support	Good	Good
Image editing and illustration	Good	Excellent
EASE		
Optimization	Good	Excellent
Automation	Excellent	N/A
HTML support	Excellent	Good
Image editing and illustration	Excellent	Good
POWER	DeBabelizer Pro 4.5	Emblaze WebCharger 1.0, Emblaze HotSpots
Optimization	Good	Good
Automation	Excellent	N/A
HTML support	Poor	Fair
Image editing and illustration	N/A	N/A
EASE		
Optimization	Fair	Excellent
Automation	Excellent	N/A
HTML support	Good	Good
Image editing and illustration	N/A	N/A
POWER	GIF Wizard	HVS Toolkit Pro 2
Optimization	Good	Excellent
Automation	Excellent	Good
HTML support	N/A	N/A
Image editing and illustration	N/A	N/A
EASE		
Optimization	Excellent	Good
Automation	Good	Good
HTML support	N/A	N/A
Image editing and illustration	N/A	N/A
POWER	Macromedia Fireworks 1.0	MAS Media Utilities 1.20b
Optimization	Good	Poor
Automation	Good	Fair
HTML support	Excellent	N/A
Image editing and illustration	Excellent	N/A
EASE		

Optimization	Excellent	Good
Automation	Excellent	Fair
HTML support	Excellent	N/A
Image editing and illustration	Fair	N/A

POWER	NetGraphics Studio2	SPG Web Tools
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Optimization	Fair	Good
Automation	Fair	Excellent
HTML support	N/A	Fair
Image editing and illustration	N/A	N/A

EASE		
Optimization	Excellent	Good
Automation	Excellent	Good
HTML support	N/A	Good
Image editing and illustration	N/A	N/A

POWER	Ulead WebRazor 1.01	
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Optimization	Good
Automation	Good
HTML support	N/A
Image editing and illustration	N/A

EASE	
Optimization	Excellent
Automation	Good
HTML support	N/A
Image editing and illustration	N/A

N/A--Not applicable: The product does not have this feature.

Optimization For this task, we examine each program's ability to import standard graphic file formats such as BMP, PSD, and TIFF, as well as its ability to output to standard Web formats such as GIF, JPEG, and PNG. A strong score here also reflects the program's ability to offer standard Web-safe color palettes, adaptive palettes, and robust color control within a palette. Each program is also evaluated on its ability to fine-tune 8-bit, color-reduced images with percentage-based control over dithering, its ability to generate transparent backgrounds, and its simulation of anti-aliased edges, in the case of JPEG output, we look for tools, such as smoothing filters or alternative subsampling options, that can potentially reduce artifacts,

Automation In this category, we look at the program's ability to perform repetitive tasks on a group of files. As a minimum, we expect a program to convert and optimize multiple images in batch mode. We evaluate a program's strengths based on its ability to create an audit log and report processing errors. In addition, we judge the program's ability to record robust scripts that automate editing tasks such as scaling, cropping, correcting color casts, or adding elements such as logos or text to images in predetermined positions.

HTML support The ability to generate HTML code automatically greatly enhances the usability of Web graphics programs. For this task, we rate a range of HTML features including the ability to create hot spots, support of both client- and server-side image maps, the ability to generate HTML tables to reconstitute a sliced image in a Web browser, and the ability to generate JavaScript rollovers, in each instance, we paste the resulting HTML tags into an HTML editor to evaluate the quantity of the code and ensure that it gives the proper instructions to Web browsers.

Image editing and illustration Features we seek for this task include

standard editing tools for resizing, rotating and cropping, changing resolutions, and adjusting color, contrast, brightness, and saturation, We also evaluate each program's support of layers, editable text, and special effects; such as bevels, emboss, and glows, commonly used in Web graphics.

SUMMARY OF FEATURES

Web Graphics Software

YES NO	Adobe ImageReady 1.0	CorelXara 2.0
Price	\$200 street	\$150 street
Product type	Standalone program	Standalone program
Formats		
Imports raster formats:		
GIF/JPEG/PNG	YES YES YES	YES YES YES
BMP/FPX/PCX	YES YES YES	YES NO YES
PSD/TIFF/others	YES YES YES	YES YES YES
Imports vector formats:		
AI/CDR/CMX	YES NO NO	YES YES YES
DRW/EPS/PDF	NO YES YES	YES YES NO
WMF/others	NO NO	YES YES
Exports:		
GIF/Transparent		
GIF/Interlaced GIF	YES YES YES	YES YES YES
JPEG/Progressive JPEG	YES YES	YES YES
PNG/PNG		
transparency/Alpha channels	YES YES YES	YES YES NO
Animated GIF/Delta compression/ Frame rate	YES YES YES	YES NO YES
Proprietary viewing format	NO	YES (requires browser plug-in
Optimization		
Adaptive palette/Web-safe palette	YES YES	YES YES
Snap to Web color palette	YES	YES
Can create one palette from multiple images	YES	NO
Can bias color selection/Can slice images	YES YES	NO NO
Can compress selected areas of image	NO	NO
User can set dither percent/number of colors	YES YES	NO YES
Can batch-process from one directory	YES	NO
Can batch-process from multiple directories	NO	NO
Interactive image preview/Download time preview	YES YES	YES YES
Number of previews available at once	1	2
View in browser preview	YES	YES

Image-editing/animation tools

Multiple undos	YES	YES
Supports layers/imported masks	YES NO	YES NO
Text/Brushes/Geometric shapes	YES YES NO	YE NO YES
Gradient/texture fills	NO NO	YE YES
Crop/Resize	YES YES	YES YES
Drop shadow/Bevel/Emboss	YES YES YES	NO NO NO
Set transparency	YES	YES
Image enhancement (or correction) filters	YES	YES
Artistic filters	NO	YES
Adobe Photoshop plug-ins	YES	YES
Scripting	YES	NO
Animation tools:		
Tweening	YES	NO
Transition effects	NO	NO
HTML features		
Client-side/server-side image maps	YES NO	YES NO
HTML code/HTML tables	YES YES	YES NO
User can create JavaScript rollovers	NO	NO
	DeBabelizer Pro 4.5	Emblaze WebCharger 1.0 Emblaze HotSpots
YES NO		
Price	\$400 street	\$100 street, each
Product type	Standalone program	Two standalone programs
Formats		
Imports raster formats:		
GIF/JPEG/PNG	YES YES YES	YES YES NO
BMP/FPX/PCX	YES YES YES	YES NO NO
PSD/TIFF/others	YES YES YES	NO NO YES
Imports vector formats:		
AI/CDR/CMX	NO NO NO	NO NO NO
DRW/EPS/PDF	NO NO NO	NO NO NO
WMF/others	NO NO	NO NO
Exports:		
GIF/Transparent		
GIF/Interlaced GIF	YES YES YES	NO N/A(1) N/A(1)
JPEG/Progressive JPEG	YES YES	YES (WebCharger)
PNG/PNG		
transparency/Alpha channels	YES YES YES	NO N/A(1) N/A(1)
Animated GIF/Delta compression/	YES YES YES	N/A(1) N/A(1)

Frame rate		
Proprietary viewing format	NO	NO
Optimization		
Adaptive palette/Web-safe palette	YES YES	N/A(2)
Snap to Web color palette	NO	N/A(2)
Can create one palette from multiple images	YES	N/A(2)
Can bias color selection/Can slice images	YES NO	N/A(2)
Can compress selected areas of image	NO	YES (WebCharger)
User can set dither percent/number of colors	YES YES	N/A(2)
Can batch-process from one directory	YES	NO
Can batch-process from multiple directories	YES	NO
Interactive image preview/Download time preview	NO NO	YES (WebCharger)
Number of previews available at once	N/A(1)	YES 1
View in browser preview	N/A(1)	NO
Image-editing/animation tools		
Multiple undos	YES	NO
Supports layers/imported masks	NO YES	NO NO
Text/Brushes/Geometric shapes	YES NO NO	NO NO NO
Gradient/texture fills	NO NO	NO NO
Crop/Resize	YES YES	NO NO
Drop shadow/Bevel/Emboss	NO NO NO	NO NO NO
Set transparency	YES	NO
Image enhancement (or correction) filters	YES	NO
Artistic filters	NO	NO
Adobe Photoshop plug-ins	YES	NO
Scripting	YES	NO
Animation tools:		
Tweening	NO	N/A(1)
Transition effects	YES	N/A(1)
HTML features		
Client-side/server-side image maps	NO NO	NO NO
HTML code/HTML tables	NO NO	YES NO
User can create JavaScript rollovers	NO	YES (requires Java classes)
YES NO	GIF Wizard	HVS Toolkit Pro 2

Price	Pricing varies by service	\$130 street
Product type	Online service	Photoshop plug-in
Formats		
Imports raster formats:		
GIF/JPEG/PNG	YES YES NO	YES YES YES
BMP/FPX/PCX	NO NO NO	YES YES YES
PSD/TIFF/others	NO NO NO	YES YES YES
Imports vector formats:		
AI/CDR/CMX	NO NO NO	NO NO NO
DRW/EPS/PDF	NO NO NO	NO NO NO
WMF/others	NO NO	NO NO
Exports:		
GIF/Transparent		
GIF/Interlaced GIF	YES YES YES	YES YES YES
JPEG/Progressive JPEG	YES YES	YES YES
PNG/PNG		
transparency/Alpha	NO N/A(1)	NO N/A(1) N/A(1)
channels	N/A(1)	
Animated GIF/Delta	YES YES YES	NO N/A(1) N/A(1)
compression/		
Frame rate		
Proprietary viewing	NO	NO
format		
Optimization		
Adaptive palette/Web-safe	YES YES	YES YES
palette		
Snap to Web color palette	NO	YES
Can create one palette	NO	YES
from multiple images		
Can bias color	NO NO	NO NO
selection/Can slice images		
Can compress selected	NO	YES
areas of image		
User can set dither	NO YES	YES YES
percent/number of colors		
Can batch-process from	YES	YES
one directory		
Can batch-process from	YES	YES
multiple directories		
Interactive image	YES NO	YES NO
preview/Download time		
preview		
Number of previews	6	1
available at once		
View in browser preview	YES	NO
Image-editing/animation		
tools		
Multiple undos	N/A(1)	NO
Supports layers/imported	N/A(1)	N/A(3)

masks		
Text/Brushes/Geometric shapes	N/A(1)	N/A(3)
Gradient/texture fills	N/A(1)	N/A(3)
Crop/Resize	N/A(1)	N/A(3)
Drop shadow/Bevel/Emboss	N/A(1)	N/A(3)
Set transparency	N/A(1)	YES
Image enhancement (or correction) filters	N/A(1)	N/A(3)
Artistic filters	N/A(1)	N/A(3)
Adobe Photoshop plug-ins	N/A(1)	N/A(3)
Scripting	N/A(1)	NO
Animation tools:		
Tweening	N/A(1)	NO
Transition effects	N/A(1)	NO
HTML features		
Client-side/server-side image maps	NO NO	NO NO
HTML code/HTML tables	NO	NO NO
User can create JavaScript rollovers	NO	NO
YES NO	Macromedia	MAS Media
Price	Fireworks 1.0	Utilities 1.20b
	\$300 street	\$100 street
Product type	Standalone program	Standalone program
Formats		
Imports raster formats:		
GIF/JPEG/PNG	YES YES YES	YES YES YES
BMP/FPX/PCX	YES NO NO	YES NO YES
PSD/TIFF/others	YES YES YES	NO NO YES
Imports vector formats:		
AI/CDR/CMX	YES NO NO	NO NO NO
DRW/EPS/PDF	NO NO NO	NO NO NO
WMF/others	NO YES	NO NO
Exports:		
GIF/Transparent		
GIF/Interlaced GIF	YES YES YES	YES NO YES
JPEG/Progressive JPEG	YES YES	YES NO
PNG/PNG		
transparency/Alpha channels	YES YES YES	NO N/A(1) N/A(1) (*)
Animated GIF/Delta compression/	YES YES YES	YES NO YES
Frame rate		
Proprietary viewing format	NO	NO
Optimization		
Adaptive palette/Web-safe palette	YES YES	YES YES
Snap to Web color palette	YES	NO

Can create one palette from multiple images	NO	YES
Can bias color selection/Can slice images	NO YES	NO NO
Can compress selected areas of image	YES	NO
User can set dither percent/number of colors	YES YES YES	NO YES
Can batch-process from one directory	YES	YES
Can batch-process from multiple directories	NO	YES
Interactive image preview/Download time preview	YES YES	NO NO
Number of previews available at once	4	N/A(1)
View in browser preview	NO	N/A(1)
Image-editing/animation tools		
Multiple undos	YES	NO
Supports layers/imported masks	YES YES	NO NO
Text/Brushes/Geometric shapes	YES YES YES	NO NO NO
Gradient/texture fills	YES YES	NO NO
Crop/Resize	YES YES	NO YES
Drop shadow/Bevel/Emboss	YES YES YES	NO NO NO
Set transparency	YES	NO
Image enhancement (or correction) filters	YES	NO
Artistic filters	NO	NO
Adobe Photoshop plug-ins	YES	NO
Scripting	NO	NO
Animation tools:		
Tweening	YES	N/A(1)
Transition effects	NO	N/A(1)
HTML features		
Client-side/server-side image maps	YES YES	NO NO
HTML code/HTML tables	YES YES	NO NO
User can create JavaScript rollovers	YES	NO
YES NO	NetGraphics Studio2	SPG Web Tools
Price	\$70 street	\$199 list
Product type	Standalone program	Photoshop plug-in
Formats		
Imports raster formats:		

GIF/JPEG/PNG	YES YES YES	YES YES YES
BMP/FPX/PCX	YES YES YES	YES YES YES
PSD/TIFF/others	YES YES YES	YES YES YES
Imports vector formats:		
AI/CDR/CMX	NO NO NO	NO NO NO
DRW/EPS/PDF	NO NO NO	NO NO NO
WMF/others	YES NO	NO NO
Exports:		
GIF/Transparent		
GIF/Interlaced GIF	YES YES YES	YES YES YES
JPEG/Progressive JPEG	YES YES	YES YES
PNG/PNG		
transparency/Alpha channels	NO N/A(1) N/A(1)	NO N/A(1) N/A(1)
Animated GIF/Delta compression/ Frame rate	NO N/A(1) N/A(1)	YES YES YES
Proprietary viewing format	NO	NO
Optimization		
Adaptive palette/Web-safe palette	YES NO	YES YES
Snap to Web color palette	NO	NO
Can create one palette from multiple images	NO	NO
Can bias color selection/Can slice images	NO NO	NO YES
Can compress selected areas of image	NO	YES
User can set dither percent/number of colors	NO YES	YES YES
Can batch-process from one directory	YES	YES
Can batch-process from multiple directories	YES	YES
Interactive image preview/Download time preview	YES YES	YES YES
Number of previews available at once	1	1
View in browser preview	YES	NO
Image-editing/animation tools		
Multiple undos	YES (can step back in Wizard)	NO
Supports layers/imported masks	YES YES	N/A(3)
Text/Brushes/Geometric shapes	YES NO NO	N/A(3)
Gradient/texture fills	NO YES	N/A(3)
Crop/Resize	YES YES	N/A(3)
Drop shadow/Bevel/Emboss	NO NO NO	N/A(3)
Set transparency	NO	YES
Image enhancement (or correction) filters	NO	N/A(3)

Can batch-process from one directory	YES
Can batch-process from multiple directories	NO
Interactive image preview/Download time preview	YES NO
Number of previews available at once	1
View in browser preview	NO
Image-editing/animation tools	
Multiple undos	NO
Supports layers/imported masks	NO NO
Text/Brushes/Geometric shapes	NO NO NO
Gradient/texture fills	NO NO
Crop/Resize	YES NO
Drop shadow/Bevel/Emboss	NO
Set transparency	YES
Image enhancement (or correction) filters	NO
Artistic filters	NO
Adobe Photoshop plug-ins	NO
Scripting	NO
Animation tools:	
Tweening	NO
Transition effects	YES

HTML features

Client-side/server-side image maps	YES NO
HTML code/HTML tables	NO NO

User can create JavaScript rollovers

N/A(1)--Not applicable: The product does not have this feature.

N/A(2)--Not applicable: This feature applies to GIF and PNG only.

N/A(3)--Not applicable: This feature is provided in Photoshop.

(*) Version 1.21 of MAS Media Utilities supports PNG and PNG transparency but not alpha channels.

The Wide World of Web Graphics

FILE PREVIEW AND FILE FORMATS

A preview shows how optimization settings will affect Images.

Macromedia Fireworks can display up to four previews at once. To find the best combination, you can change the file format, number of colors, the color palette, and other settings for each preview. Note the file size and estimated download time.

JPEG: Developed by the Joint Picture Experts Group, JPEG was designed specifically for compressing photographic Images of up to 24-bit color (millions of colors). Unlike GIF, JPEG is a "lossy" format, meaning that it sacrifices some of the information in the image to reduce file size. But you can fine-tune quality versus compression to find the right balance.

GIF: The most popular graphics format on the Web, GIF (Graphics Interchange Format) was developed by CompuServe and provides good compression without sacrificing quality. It is best suited for graphics

with areas of solid color, such as clip art and logos. GIF is limited to 8-bit color but supports transparency.

PNG: PNG (Portable Network Graphic), pronounced "ping," is the most robust file format, but only Microsoft Internet Explorer 4.0 or later currently supports it without a plug-in. A lossless format that yields a higher compression rate than GIF or JPEG, PNG supports up to 32-bit Images and can contain transparency or an alpha channel.

COLOR PALETTES

Color palette controls ensure that your images look consistent and can be compressed as much as possible while preserving quality. Web graphics tools offer a range of palettes including adaptive (based on the colors that appear most often in the image), perceptual (based on the colors to which the human eye is most sensitive), and Web-safe (the 216 standard colors shared by both Macintosh and Windows PCs). Many programs also let you add or remove individual colors, create custom color palettes based on one or more Images, and bias colors--a process that keeps certain colors when reducing the total number of colors in the Image. In this example, we created a logo (1) and optimized it using Adobe ImageReady. To see how it would appear in a browser on a low-resolution display, we turned on the Browser Dither option (2 & 3). To correct the dithering on the type, we selected the type color and "shifted" that color to the closest Web-safe color (4). The result (5) was smoother type.

AUTOMATION

Many image-editing and optimization tasks can be repetitive when you're working on large Web sites that contain loads of graphics. Automation features are the answer. Equilibrium's DeBabelizer Pro is the best at automation, not only for Web graphics but also for multimedia and video production. The easiest way to automate a task in DeBabelizer is to perform a series of actions on one image.

The program automatically logs everything you do, and you can simply drag and drop the log onto a Script dialog box (1) to create a new script. You then create a list of the files that you want to perform the script on, called a Batch-List (2), then process the batch. The Naming Options (;5) and Save As (4) dialog boxes give you a lot of control over the attributes of the resulting files (5).

IMAGE SLICING

This lets you divide a single image into segments, which are reassembled using an HTML table. Image slicing is often used for images that contain varying elements such as photographic images, line art, and text. A navigation bar is atypical example. Here we used Macromedia Fireworks to slice (1 & 2) an image into four segments (defined by the yellow boundary lines) and assign export settings (3). Fireworks automatically generated the HTML table and the individual image files (4).

ROLLOVERS

Rollovers change the appearance of objects, such as buttons, when you roll the mouse over them or click on them. In this example, we used Macromedia Fireworks to create a button (1), make duplicates of it for the different states (2), and assign to each frame a Button Preset effect (3). We then used the Rectangle tool on the URLs toolbar (4) to draw an Image map over the button (5) and insert a new link (6). When we exported it as a GIF Rollover, Fireworks automatically assigned states to each of the frames (7) and generated the necessary HTML containing JavaScript that instructs the browser on how to display the button.

Editors' Choice

* Macromedia Fireworks 1.0

As we learned during testing, the term Web graphics covers a lot of ground. Optimizing images is certainly one of the primary tasks, but there's a lot more to it, including automating frequent tasks, producing HTML to support special types of graphics, and providing the right image-editing and illustration tools. Only one product we tested, Macromedia Fireworks (\$300 street), comes close to addressing all these

areas--earning it our Editors' Choice.

Fireworks can import a wide variety of bitmapped and vector file formats and export GIF, JPEG, PNG, and animated GIF files. Its Export dialog box can display as many as four optimized versions of a file at once. Each preview can have different export formats and settings, and Fireworks displays the size of the optimized file and its estimated download time.

The standard color palette controls are all present in Fireworks. You can select Web-safe and adaptive palettes, snap colors to Web-safe hues, and specify the amount of dithering. The JPEG options include progressive output, a quality setting, and a smoothing filter to reduce artifacts. On our tests, Fireworks produced quality GIF and JPEG files, as well as the best PNG of the group.

But what separates Fireworks from the pack is its features beyond optimization, especially its HTML support. Fireworks is the only product that can slice an image into segments and export them with different file formats. The program automatically creates the HTML table to reassemble the image in a browser. Similarly, Fireworks automatically generates the HTML and JavaScript for rollovers. Fireworks can also export image maps. And we were impressed with Fireworks' animation capabilities. Finally, Fireworks includes a well-rounded set of image-editing and illustration tools.

Fireworks still lacks some features, and several other products deserve honorable mention for their special capabilities. Adobe ImageReady offered the best color palette controls, including a perceptual palette and color biasing. If you already use Adobe Photoshop, Digital Frontier's HVS Toolkit Pro 2 plug-in delivers the best GIF and JPEG images. Hemera Technologies deserves kudos for addressing less-savvy users' issues with NetGraphics Studio2. Finally, if you work with a lot of images, Equilibrium's DeBabelizer Pro 4.5 offers a unique set of automation features.

Web Graphics by the Numbers

By Sally Wiener Grotta and Daniel Grotta

Based on the premise that it is easier to put pieces together than to build from scratch, NetStudio (\$150 street), from NetStudio Corp. (510-644-9700; www.netstudio.com), is a basic program for customizing banners, bullets, buttons, and navigation bars. The trade-off for this simplicity is that NetStudio is quite limited, offering few of the image-editing or optimization features found in other Web graphics programs.

We tested a beta version of NetStudio. The final version should be available by the time you read this.

Like Hemera Technologies' NetGraphics Studio2, reviewed in this story, NetStudio seeks to take the complexity out of preparing graphics for the Web by selecting the most appropriate format automatically (you can override its recommendation, though). NetStudio supports GIF, JPEG, and PNG. The program automatically applies an adaptive palette to images exported in GIF or 8-bit PNG. No other color palette is offered.

What distinguishes NetStudio from the optimization tools in our main story is that this program is designed more to assemble elements for Web pages from existing components. To begin, you click on the icon for a banner, bullet, button, or button bar. To drop a color, image, or gradient, just double-click on the blue background. You can add transparency, drop shadows, blur, and bevels, but these can only be toggled on or off and are not editable. Similarly, text controls are basic, but you can control the placement, color, and amount of blur.

NetStudio's only image-editing tools are basic sliders for brightness, contrast, color wash, and transparency. Transparencies can be faded from opaque to fully transparent, to combine pictures seamlessly.

Although the image-editing tools are sparse, many users may often bypass them and simply use NetStudio's built-in gallery of Web page designs. With a single click, you can apply styles, colors, layout, and so

on from the canned designs in the gallery. The shipping version should include about 100 design templates, and you can save your own designs to the gallery.

By loading your target Web page into NetStudio, you can preview the buttons or banners you've created in place. You can also insert a NetStudio graphic directly into Adobe PageMill, Microsoft FrontPage 2000, or Netscape Composer.

Graphics Software Gets Down to Business

By Sally Wiener Grotta and Daniel Grotta

Even if you own a small business, your customers or potential clients expect a big-business look. But few businesspeople have the time to learn a complex graphics program such as Adobe Photoshop. And consumer-level products tend to be too simplistic or only offer projects appropriate for home use. A third category of graphics software has evolved to meet the needs of these midrange users, who know their way around a PC but don't want to become graphics gurus. Three programs--Jasc Software's Paint Shop Pro 5.0, Microsoft PhotoDraw 2000, and Ulead Systems' PhotoImpact 4.2--fall into this business graphics category. Each of these includes a mix of features for both print and the Web.

Paint Shop Pro 5.0

* Paint Shop Pro 5.0 (\$80 street) is a traditional image editor that offers a powerful suite of image-editing tools (800-622-2793; www.jasc.com) at a fraction of the price of Adobe Photoshop. But for novices, the interface may take some getting used to.

Paint Shop Pro's image-editing tools cover the full range of picture adjustments and corrections. Painting is simple and direct yet highly customizable, with extensive control over such elements as color.

The compositing tools are equally powerful. The layers palette offers all the standard options, including blend modes and transparency levels. Paint Shop Pro also includes numerous selection tools, including a Smart Edge finder.

The Filter Browser allows you to preview how a series of special effects will alter your image. The Drop Shadow tool provides control over color, opacity, blur, and offset.

Version 5.0 adds support for layers--bringing Paint Shop Pro one step closer to professional image-editing programs--and also Animation Shop, for generating animated GIFs for the Web.

Microsoft PhotoDraw 2000

* Microsoft PhotoDraw 2000 (\$150 street) is for businesspeople who want to produce graphics quickly without learning the ins and outs of bitmap- and vector-based tools (800-426-9400; www.microsoft.com). In addition to providing image editing, PhotoDraw 2000 integrates illustration and 3-D tools.

PhotoDraw's interface is very graphical, with a Visual menu that offers task-related icons. The Picture Gallery displays thumbnails of all open pictures and provides access to each image's object list.

When you're painting, each stroke is an object filled with a texture. It remains editable, allowing you to change its size, shape, color, texture, or angle.

PhotoDraw 2000 offers a large library of effects, all of which can be applied to any object. Text is clean and crisp, and even after you add effects, it remains editable. PhotoDraw 2000 also has an edge-finding selection tool.

The template library includes Web banners, mastheads, bullets, and buttons. And the Save for Use In... wizard helps you prep, size, and choose file formats for your images.

PhotoImpact 4.2

* A high-powered image processor, PhotoImpact 4.2 (\$100 street) has an extensive feature set (800-858-5323, www.ulead.com). Emphasizing efficiency, it gives the user fast and full control over images.

Commands in PhotoImpact are easily accessible, streamlining common

actions. The EasyPalette offers effects and tools that can be dragged and dropped onto images. Brush styles are also defined in the EasyPalette.

The text tool and effects are powerful and easy to use. Any type in your image can be reshaped by using EasyPalette thumbnails or by manipulating its eight-point vector envelope.

Various Web tools, such as a Button Designer, are included. In the Layer Manager, you can assign URLs to objects, while the HTML Image Assistant generates the appropriate HTML. PhotoImpact also includes SmartSaver, the image-optimization program.

Our Contributors: LUISA SIMONE, JAN OZER, SALLY WIENER GROTTA, and DANIEL GROTTA are contributing editors of PC Magazine. DIANE JECKER was the project leader, and JOHN MORRIS was the associate editor in charge of this story.

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... easy to reshape paths, and Fireworks supports both Adobe Photoshop plug-ins and Macromedia Xtras.

Fireworks uses PNG as its native format, but it can import a wide variety of bitmapped and vector file formats, including layered PSD, Adobe Illustrator, CorelDraw, and **Macromedia** FreeHand. **Fireworks** performs all conversions, color reductions, and compression operations in the **Export** dialog box. It can display a split-screen preview with up to four variations of...

...masks to create transparency, you can choose a transparent color or alpha channel in the **Export** dialog box. If you find a perfect **optimization** setting, you can save it.

Fireworks produced good but not stellar GIF output on our...

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Article Detail

Web Tools Woven Together

By: Luisa Simone

PC Magazine

Published Date: 02/08/2000

<http://www.truequery.com/truequery/search/articleDetail.jsp?doc=241308>

If you are a professional Web developer, chances are that you already use at least one of Macromedia's Web-centric products. With the release of Dreamweaver 3 **Fireworks** 3 Studio (\$399 direct), Macromedia has provided several compelling reasons to use two of its products together. Macromedia has bundled the premiere HTML authoring tool and the leading Web graphics program as one low-cost product. More important, the company has provided mechanisms that make using Dreamweaver and **Fireworks** in tandem easier than ever.

Dreamweaver and **Fireworks** are, in Macromedia's parlance, JavaScriptable. Both experienced coders and nonprogrammers will soon find themselves using this feature to create macro commands or extend each program's functionality.

Key to this power is the new History palette, which records all of your actions. You can use the History palette to undo any of your edits, to replay specific operations, or to save a series of actions as a command. Commands are written in JavaScript, so they're usable across both PC and Mac platforms.

Macromedia provides several simpler, more direct ways to integrate Dreamweaver and **Fireworks**. A new wizard walks you through copying and pasting **Fireworks** HTML code into an existing Dreamweaver (or GoLive or FrontPage) document. And Dreamweaver contains a new object, called **Fireworks** HTML, that lets you easily insert a **Fireworks** graphic and all of its associated slice objects and code into a Web document.

Of course, Macromedia also sells Dreamweaver 3 (\$299 direct, upgrade \$129) and **Fireworks** 3 (\$199, upgrade \$99) as standalone products. So in addition to the synergistic new functions, each program offers a number of new internal features.

Macromedia concentrates on polishing Dreamweaver's HTML tools. A pop-up Quick Tag Editor lets you code snippets of HTML for a selected object in the WYSIWYG working view of your document. The HTML Source Inspector window has also been updated with line numbers, the ability to select entire lines of code from the margin, and draggable selections.

Dreamweaver has new objects that simplify the HTML creation process. A new table object lets you specify a source data file, and precoded symbols such as trademark and copyright characters obviate the need to hand-code special characters. In addition to the **Fireworks** HTML object, the program now has rich media objects for Shockwave 7 movies, Flash 4 movies, and Generator objects.

Fireworks 3 integrates critical preview functions directly in the workspace. You can preview sliced objects containing multiple compression settings, compare different output options in two-up or four-up configurations, and view the shift in gamma when an image is displayed on a Mac. You can even see JavaScript rollovers in action without exiting to a browser.

Big productivity boosts are provided by the new Symbol library. Not only does this let you quickly reuse images, but it also preserves the JavaScript code for buttons. There's also a new wizard that automates the process of creating a rollover button.

Most impressively, you no longer have to exit **Fireworks** to access image-correction filters. Both basic correction tools, including brightness/contrast and hue/saturation, and third-party filters have been implemented as editable Live Effects.

We found the two products to be stable, but we do have a few caveats to report. Despite Macromedia's minimum requirements, the advanced functions require substantial horsepower. We also found glitches in some of the sample JavaScript commands.

Dreamweaver 3 **Fireworks** 3 Studio is more than the sum of its parts. Both Dreamweaver and Fireworks—already top-notch tools—get significant new features. But it is the integration of the two that will make a big difference for professional Web producers.

Dreamweaver 3 **Fireworks** 3 Studio

Direct price: \$399, upgrade \$199/\$249. Requires: 64MB RAM; 60MB hard disk space; Microsoft Windows 95, 98, or NT 4.0 with Service Pack 3 or later. Macromedia Corp., 800-457-1774; www.macromedia.com. 11111

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Title Adobe Photoshop 5.0 classroom in a book.

Alt. Titles Classroom in a book.
Adobe photoshop 5.0.

Author Adobe Systems, Inc.

Imprint San Jose, CA : Adobe Systems, Inc. , 1998.

Notes World-standard photo design and production tool, provides the power to create compelling images and the precision to prepare them for the printed page, the Web, and anywhere in between.
CD-ROM drive.

Descr. 1 guide (441 p.) : ill. ; 23 cm. + 1 computer laser optical disc.

Subjects Computer art -- Software.
Image processing -- Software.
Computer graphics -- Software.

Edition Windows/Macintosh version

watercolor:

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Optimizing Web Graphics

The Great Bandwidth Shortage

By Andrew B. King (aking@internet.com)

"The Web seems slow today."

If this lament sounds all too familiar, you are not alone. The network's backbone isn't the problem, it's what happens at each end that frustrates users. The increasing size of digital media and lack of server bandwidth are the main culprits. More bandwidth won't necessarily solve this problem. What will help is minimizing the amount of data that travels through this bandwidth. This article will show you how to minimize file size and dithering for Web graphics.

See also [Extreme HTML Optimization](#) and [Optimizing Animated GIFs](#) for more tips on optimizing your HTML and animated GIFs.

Contents

- [Introduction](#)
- [Which Color Palette?](#)
- [Color Reduction](#)
- [Compression](#)
- [Tools and Techniques](#)
- [Conclusions](#)
- [References](#)

Bandwidth can be its own enemy, concludes Dr. Sunil Gupta ([Gu96](#)). Just as adding more lanes to a highway invites more traffic, increasing bandwidth invites more users. ISDN, cable modems, and ADSL ([AD96](#)) will only temporarily ease the congestion. More people will be enticed to sign on, all competing for packets.

Links

[ProJPEG 5.1](#)

BoxTop's released a new version of their JPEG cruncher that creates smaller files with higher resolution. 010123

[JPEG Cruncher](#)

Another spinoff from Spinwave that uses their fine HVS technology.

[JPEG Wizard](#)

Article updated with latest GIF and JPEG optimization tools, including Imageready 2 and JPEG Wizard from Pegasus Software. 000217

[JPEG Wizard Service](#)

Developer News

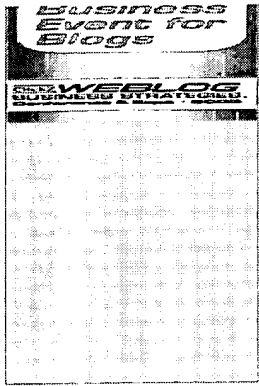
[Sendmail Tries to Help Mobile Workers](#)

['Fizzer' Worm Squirms Across the Web](#)

[JetBrains Adds IDE to JBoss Community](#)

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JPEG Wizard Service

The JPEG Wizard Online Optimizer is a free service featuring the only true JPEG compression optimization available. The JPEG Wizard will also rotate/mirror your JPEG file with optimization, or completely without loss.

Photoshop 5.5 Review!

Adobe bundles ImageReady 2 and adds many Web features including the innovative Lossy GIF feature. 8-9-99

GIFCruncher

A new GIF cruncher from Spinwave that utilizes sophisticated color reduction techniques to create low-color, low-banded, static and animated optimized GIFs.

GIF Wizard

This on-line GIF reduction program can reduce GIFs (animated or otherwise) and now JPEG! beyond conventional methods. Combined with the techniques you'll learn here (and in [Optimizing Animated GIFs](#)) you can create highly optimized GIFs with less work. GIF Wizard actually automates many of the techniques you'll learn here, and is especially effective for reducing animated GIFs.

Color Blenders - Tools

Color blenders create non-dithering equivalents to any RGB color. DitherBox and ColorSafe both automatically create a 2x2 pixel patterns that simulate any RGB color you choose. These blends do not dither as they are made of 2 of the 216 "non-dithering" colors, and from normal viewing distances appear to be one solid color. Useful for backgrounds and larger flat color areas. Designers are no longer limited to 216 colors! 8-2-97

GIF Wizard

Don't miss this on-line GIF reducer. Give it the URL of any GIF or web page and GIF Wizard performs a detailed analysis of your GIF, and outputs optimized versions of it.

Welcome Web Techniques Readers!

This is the expanded version of "Optimizing Web Graphics," which appeared in the Dec. 1996 issue of [Web Techniques](#), pp.55-61.

Both 216-Color Mac or PC non-dithering CLUTs are now available.

To use them download, unstuff/zip, and load as a Photoshop swatch or color table. For more details, read the [palette](#) page.

This is an expanded version of an article that originally appeared in the December 1996 issue of [Web Techniques Magazine](#).



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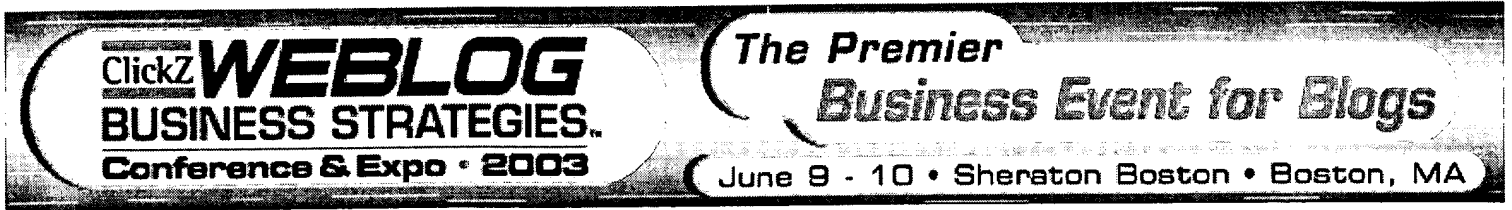
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The difference in file size is dramatic; see Table 1. With the conventional full-frame method our penguin waddled across the screen and ate up 21K (7 frames x 3K/frame = 21K); see Figure 9. The "frame optimization" feature of GIFBuilder reduced the file size to 5243 bytes, less than a fourth of the size of the full-frame method; see Figure 10. Frame differencing plus cropping to the minimum bounding rectangle pared the file down to 4852 bytes (an additional reduction of 7.5%); see Figure 11. Running WebPainter 3 with comments removed shrank it further to 4818 bytes, an additional reduction of 0.7%; see Figure 12. SuperGIF also performs LZW interframe optimization, and performs an additional step of re-dithering pixels to maximize compressibility to 4648 bytes.

Table 1: Animation Optimization Method vs. File Size

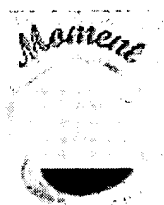


Fig. 9 - Full Frame - 21,069 bytes



Fig. 10 - Min. Bounding Rectangle - 5243 bytes



Fig. 11 - +Frame Differencing - 4852 bytes



Fig. 12 - +LZW Optimization - 4818 bytes

Note: Debabelizer was used to reduce the first GIF directly from the Photoshop file. GIFBuilder 0.5 was used to create the second Minimum Bounding Rectangle bird at five bits of color depth (maximum of 32 colors). The third animation was created with ImageReady 3 with no lossy and transparency on. The fourth animation was created by running WebPainter 3 once on the full framed animation with comments deleted. To balance apparent smoothness of motion with file size we chose to use five penguin frames, and blank frames on each end (a full first frame to "paint" over and a difference frame at the end) for a total of seven frames.

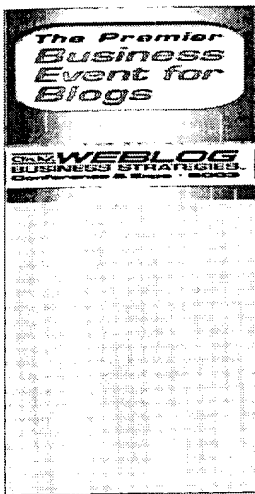
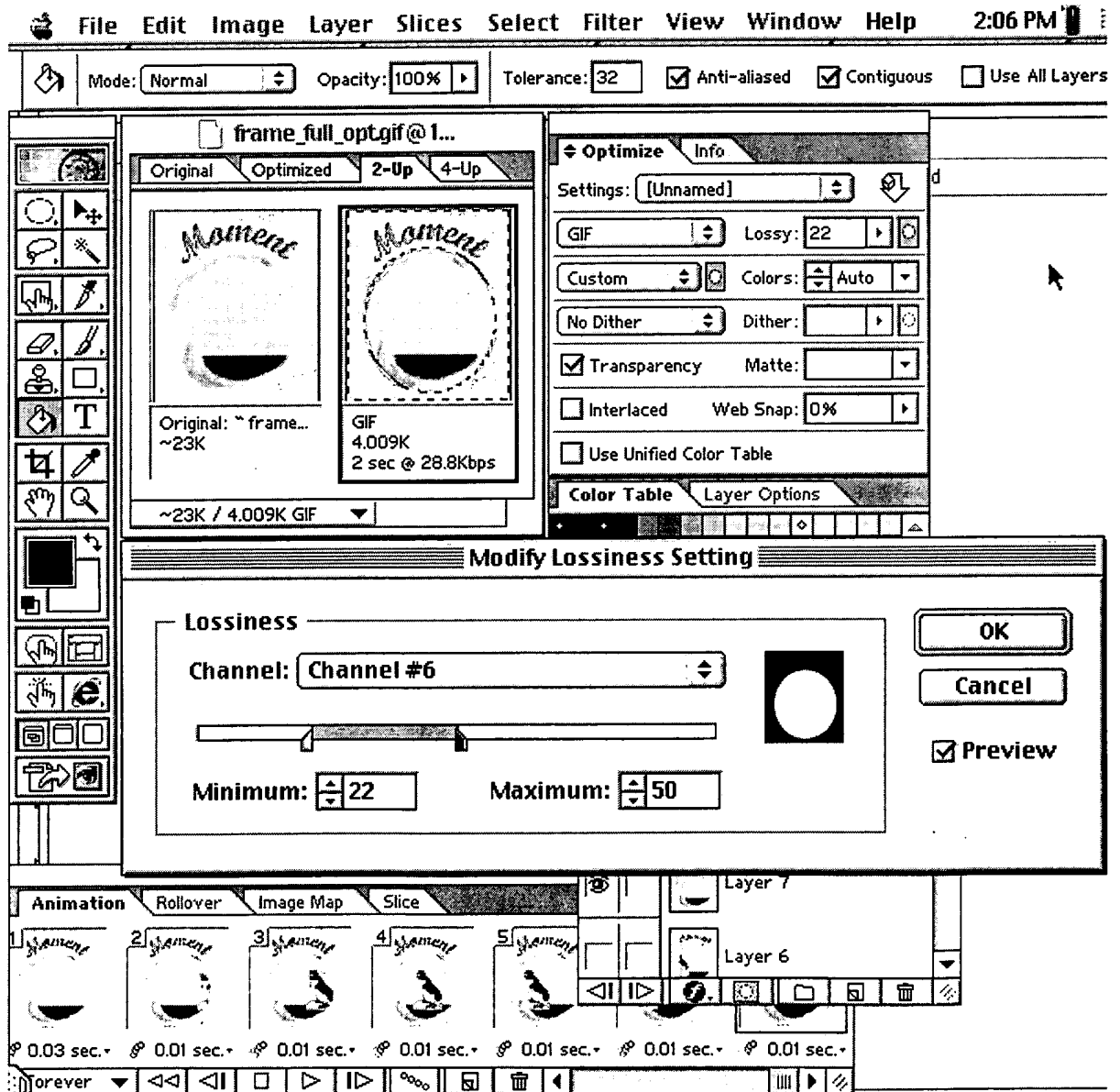
frames.

ImageReady 3

We have a new champion! ImageReady 3 (now bundled with Photoshop 6) raises the bar once again, with their "weighted optimization" selective compression feature. Other programs have selective or area-based compression, (xat.com), but Adobe gives you total control using 8-bit alpha channels to set image optimization parameters selectively, and with precision. From Adobe's Photoshop 6 press kit:

"You are no longer restricted to rectangular areas..., but can optimize an image using the natural contours of different image areas. Using channels, you can produce gradual variations in GIF dithering, lossy GIF settings, and JPEG compression. Weighted optimization controls also let you favor colors in selected image areas as you generate custom color palettes."

For example, in a portrait you could keep more definition in the face, and optimize the background. Both areas would have their own optimization settings. Lossiness, color palettes, and dithering can all be selectively applied to different regions of your image, very powerful stuff.



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ImageReady 3.0 (Original, No Transp (Bounding box), Transp on (Frame differencing), Lossy = 22% interior, 50% exterior)

Weighted Optimization

To use the new feature, create a channel using the selection tool (I used an ellipse to surround the ice hole, and inverted it, to select the surrounding ice), save it, and click on the little round button next to the lossy slider. Adjust the white slider to set the lossy compression in the white part of the channel (interior in this case), and the black slider to set the lossy compression in the black (exterior in this case). Rather than a brute force approach of using the same settings over the entire image or animation, you can selectively optimize portions of your image to different degrees, for maximum quality and minimum file size. At 36% lossy for just the exterior I got a 4427 byte bird, sliding the white (interior) slider to the right to 22% (previous overall tolerable lossy setting) gave a svelte yet photogenic 4230 byte bird, a new record. (I actually used two ellipses to keep some definition in the ice hole area.)

Lossy GIFs

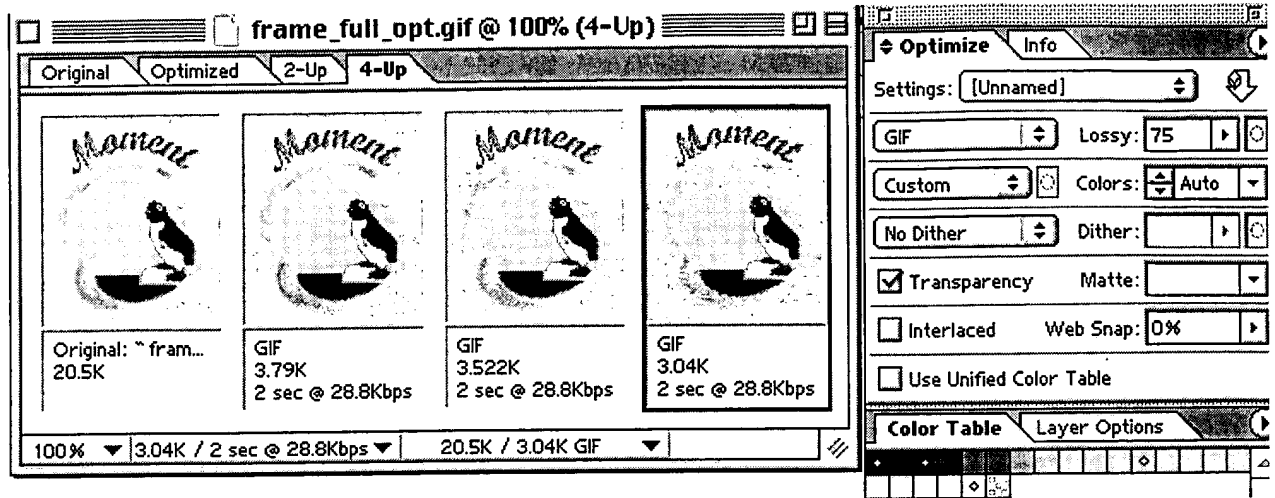
Adobe's "lossy GIF" feature offering savings of anywhere from 5-40% over conventional GIF optimization programs. Adobe improved ImageReady 2's (unchanged in version 3) frame differencing (you still have to check on transparency to get differencing) and tied with SmartSaver 3 for the smallest frame differenced files I tested (4852 bytes). Adobe went one step further with their "lossy GIF" slider that preprocesses the image data to optimize LZW compression. From Adobe's documentation:

"The Lossy GIF format includes small compression artifacts (similar to those in JPEG files) but yields significantly smaller files....Drag the Lossy slider or enter a value to allow the compression process to remove pixels from the image (and reduce file size). You can often apply a Lossy value of 5%-10% without degrading the image. File size can often be reduced 5%-40% using the Lossy option."

No Adobe has not invented a new file format, the "Lossy GIF." GIFs use a lossless compression algorithm (LZW) so you are not losing data like a JPEG. "Lossy GIF" is Adobe-speak for preprocessing the image data to make LZW more efficient. Like LZW interframe optimization, that extends run-lengths and repeats patterns to maximize redundant tokens and help minimize file size, Adobe's new method massages the image data and deliberately introduces strategically placed minute errors before compressing with LZW. You control the amount of error the algorithm introduces with a loss slider.

The savings are impressive. I tried various loss settings and found for the animated test penguin 22% was about the maximum I could use without seeing a difference. I shrank Penny down to a petite 4469 bytes, without a discernible change in appearance.

You can use the 2- or 4-Up views while tweaking optimization settings to see their effects. The lossy slider controls the amount of error Adobe's algorithm introduces, and is nonlinear. There's a certain threshold where the image degrades, so try tweaking yours until you find what is acceptable. I've included some higher loss settings below so you can get an idea of the effect.



ImageReady 3.0, Lossy 30%,50%,75%

You can, of course, reduce the number of colors in your animation, for additional savings. Adobe has encapsulated ImageReady's optimization features in the "Save for Web" plug-in which is used by PhotoShop 6.0 as an export dialog (a preview of things to come). Overall, Adobe's done a superb job of making these complex features easy to use with their standardized palette interface.

SuperGIF 1.0

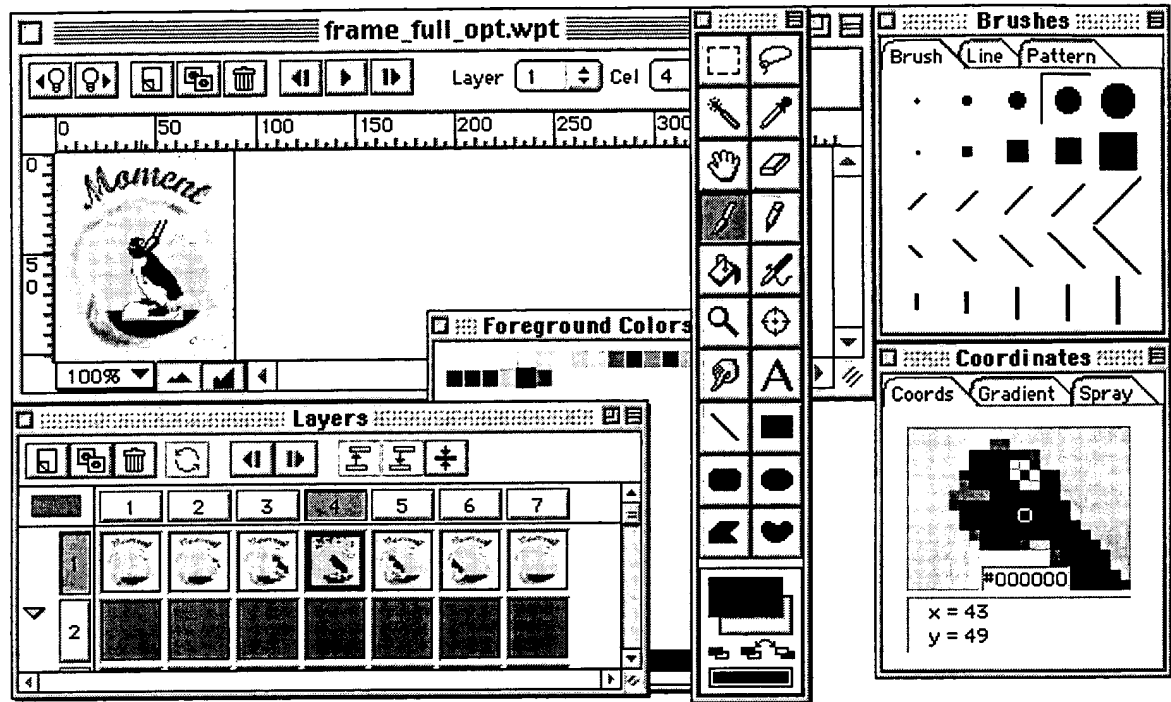
SuperGIF is aptly named. Like Superman SuperGIF leaps over tall GIFs with a single drag and drop. Super, from the Latin *superus* or over, means superior and in this case it's not bragging when you deliver. The folks at BoxTop Software went to school on GIF optimization, and used techniques they developed for GIFmation (animated GIF creation) and PhotoGIF (GIF optimization) plus some other tricks to create a superior "lossless" GIF optimizer.

Like WebPainter and a few others SuperGIF employs LZW interframe optimization, but adds a unique re-dithering algorithm to massage the pixels before compression with LZW. The result is visually indiscernible from the original (thus the quotes around lossless), and gave the smallest results we've seen for non-lossy compressors (4648 bytes).

The interface is simplicity itself, just drag and drop. That's it! Travis and company plan to add the lossy feature found in ImageVice to SuperGIF to create the ultimate GIF optimizer. We'll keep you posted.

WebPainter 3.0

For optimization of animated GIFs, Totally Hip's WebPainter 3.0 has the best lossless LZW optimization with a 4818 byte bird, with comments removed. WebPainter 3.0 adds frame differencing and hybrid LZW inter-frame optimization to version 2.0, and creates very small animated GIFs. Our test penguin flew in at 4851 bytes (File - Export - Optimize Size) at 32 colors, and a miniscule 4818 with comments removed (Edit->Document Info - delete comment). WP3's interface rivals GIFmation's for ease of use, and features many Photoshop-like features for image editing and creation. I'd like to see TH default to comments removed for WP3+, to make this a one-step operation.



WebPainter 3.0

Fireworks 3

For one-step optimization of animated GIFs, Macromedia's Fireworks 3 came in a close third for lossless LZW optimization with a 4826 byte bird, edging out GIF Wizard by one byte (includes no comments, see Table 2).

Unfortunately, FW 3's interframe optimization left some unnecessary pixels on the table (note WebPainter's superior results) otherwise its combination of LZW optimization and lossy pre-processing would have beat ImageReady, which only uses frame differencing plus lossy. Looking at the individual frames, FW 3 actually resembles bounding box in some areas. I'd like to see Macromedia tune its interframe LZW optimization algorithm to be more efficient. FW 3 is second only to ImageReady for lossy GIF optimization.

Fireworks is a new class of Web-centric image creation and optimization program, and merges many features found once in separate graphics products. Fireworks also includes a powerful set of image manipulation and creation tools and can handle most Web image formats, including JPEG, GIF, PNG, and TIFF. It features layers, symbols for multiple instances of objects, move/tween text along a path, a Web snap adaptive palette that automatically snaps nondithering colors to the Web-safe 216 color palette, and much more.

With Fireworks 3, Macromedia listened to its customers and created an end-to-end Web graphics design tool. Like Dreamweaver, Fireworks 3.0 now features roundtrip editing called Visual Roundtrip Editing that allows the designer to create their graphics once (and import from Photoshop, Freehand, etc. and digital cameras) and easily tweak graphics and documents site-wide using powerful find and replace (including Grep!), text and object styles and scriptlets. Fireworks 3 is integrated with Dreamweaver 3, double click on an image in Dreamweaver and edit or optimize it in Fireworks. Create a JavaScript rollover in Fireworks and export it as a behavior for Dreamweaver. You can export a new navigation banner in Fireworks as a library item in Dreamweaver to change your entire site in one step.

Fireworks 3.0 is a deep product feature rich with useful time-saving features for designers. A full review is beyond the scope of this article, but if you haven't tried it you're in for a treat. Two cool

new features I like were the export to size wizard and scriptlets. Export to size allows you to choose a file size and Fireworks will adjust the colors etc. to fit (useful for banner ads). Scriptlets allow you to automate routine tasks like optimizing a batch of GIFs using drag and drop. The interface takes some getting used to but the superior GIF89a optimization alone is worth the price. Finally, there's one program you can buy that combines the creation, and manipulation of Web images, with efficient GIF89a optimization.

The GIF89a animations I created with Fireworks worked fine in all browsers tested.

GIF Wizard

GIF Wizard came in second with a 4845 byte bird, which includes a 32 byte comment. A second run on the 4845 byte file removes the comment for a 4827 byte file (GIF Wizard has a threshold value for when the comments are removed, if the change in file size is less than 2%, GIF Wizard removes the comment, thus the second run-through). GIFWizard pioneered LZW interframe optimization and Tom Kirchman's experience shows in the newest version of this on-line GIF optimizer.

SmartSaver 3.0

Ulead's SmartSaver 3.0 came in a next with a no comment 4852 byte bird. Ulead's Animation SmartSaver has a simple tabbed interface, and works in batch or individual image mode. SmartSaver supports frame differencing and tied with ImageReady 2 for the smallest frame differenced files I tested. The pro version adds a lossy slider, though not as efficient as Adobe's.

GIFMation 2.1

BoxTop Software's GIFMation came in next at 4883 bytes, with a 29 byte comment (for an effective 4854 byte bird), and uses frame differencing. GIFMation is cross platform and very easy to use. It also produces bulletproof animated GIFs that work everywhere we tried them. However, the current version cannot delete comments.

WebUtilities.com

Ulead.com's WebUtilities.com site includes a free GIF optimization service based on their SmartSaver 3.0 technology. WebUtilities uses frame differencing and reduced our test penguin down to a svelte 4893 bytes, including a 36 byte comment (for an effective 4857 bird). The Web-based tool features side by side comparison, GIF, JPEG, and PNG support, and allows you to tweak the various optimization settings interactively (smoothing, dither, palette, and number of colors), and save and view different results. Inexplicably, Ulead's on-line product actually creates smaller GIF89as than their GIF Animator 3.0 product.

PhotoAnimator 1.0

Extensis PhotoAnimator came in next, it includes frame differencing, and automatically removed comments. Our test penguin came in at a low 4878 bytes (no comments).

GIF Animator 4.0

Ulead's GIF Animator 4.0 uses frame differencing. Strangely enough, Ulead included LZW optimization in version 1.5, and removed it in version 2. GIF Animator's Optimization Wizard gave me the best results. It takes you through the different optimization options, and recommends settings that'll give the smallest GIF89a. It's not a one-step operation like Fireworks is, and I had to manually set the number of colors in the superpalette to 22 to achieve the smallest file size.

Fireworks minimizes the colors in the superpalette automatically. GIFAnimator 4.0 produced a 4979 byte file from our full-framed test penguin with comments turned on. With comments off (prefs->personal->uncheck add personal comment) GifAnimator 4.0 produces a 4852 byte bird.

Table 2: Animation program file size comparison (reduced from full-sized frames)

Program	File Size
Animagic	5459 bytes
A Smaller GIF 1.09	5287 bytes (set to max compatible)
GIF Builder 0.5	5243 bytes
Ignite 2.0	5177 bytes
GIF Animator 4.0	4979 bytes (includes default comment)
GIFCruncher	4940 bytes
HVSAAnimator Pro 1.0	4931 bytes
WebUtilities.com	4893 bytes (includes 36 byte comment)
Corel Xara 2.0	4886 bytes (includes comment)
GIFMation 2.1	4883 bytes (includes a 29 byte comment)
PhotoAnimator 1.0	4878 bytes (interframe transparency optimization, no comments)
Animation SmartSaver 3.0	4852 bytes (without comment)
GIF Animator 4.0	4852 bytes (includes no comment (prefs->personal->uncheck add personal comment))
GIF Wizard	4845 bytes (includes 32 byte comment)
A Smaller GIF 1.09	4833 bytes (max. compression but incompatible)
GIF Wizard	4827 bytes (no comment after second run)
Fireworks 3.0	4826 bytes (without comment)
Web Painter 3.0	4818 bytes (no comment)
SuperGIF 1.04	4648 bytes (no comment) - smallest "lossless" GIF
Imageready 2.0	5177 bytes (transparency off, bounding box) 4852 bytes (transparency on, frame diff.) 4230 bytes (transparency on, lossy = 22% interior, 50% exterior)

Table 3 summarizes the optimization features of these and other animation programs.


Table 3: Animation program optimization feature comparison

Program	Optimized Global Palette	Minimum Bounding Rectangle	Frame Differencing	LZW Optimization	Bandwidth Simulator	Mac/PC
<u>A Smaller GIF 1.09</u>	N	Y	Y	N	N	Y/Y
<u>Animagic</u>	Y	Y	N	N	N	N/Y
<u>Fireworks 3.0</u>	Y	Y	Y	Y	N	Y/Y
<u>GIF Animator 4.0</u>	Y	Y	Y	N	N	N/Y
<u>GIFBuilder 0.5</u>	N	Y	N	N	N	Y/N
<u>GIFCruncher</u>	Y	Y	Y	N	N	WEB
<u>GIFMation 2.1</u>	Y	Y	Y	N	Y	Y/Y
<u>SuperGIF 1.0</u>	Y	Y	Y	Y	N	Y/Y
<u>GIF Wizard</u>	Y	Y	Y	Y	N	WEB
<u>HVS Animator Pro 1.0</u>	Y	Y	Y	N	N	Y/Y (Java)
<u>Imageready 3.0</u>	Y	Y	Y*	N	N	Y/Y
<u>Ignite 2.0</u>	Y	Y	N	N	Y**	N/Y
<u>PhotoAnimator 1.0</u>	Y	Y	Y*	N	Y	Y/Y
<u>Animation SmartSaver 4.0</u>	Y	Y	Y	N	N	N/Y
<u>Web Painter 3.0</u>	Y	Y	Y	Y	Y	Y/Y

*Turn transparency on for frame differencing in ImageReady and PhotoAnimator. ImageReady 3 and Ulead's Smartsaver Pro adds a "lossy GIF" slider.

**Ignite shows times to download.

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Created: Oct. 7, 1996
Revised: Aug. 28, 2000

URL: <http://webreference.com/dev/gifanim/results.html>

File 344:Chinese Patents Abs Aug 1985-2003/Feb
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File 347:JAPIO Oct 1976-2003/Jan(Updated 030506)
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File 348:EUROPEAN PATENTS 1978-2003/Apr W04
(c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20030508,UT=20030501
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File 350:Derwent WPIX 1963-2003/UD,UM &UP=200330
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? ds

Set	Items	Description
S1	4	AU={DANCIU I? OR DANCIU, I?}

1/5,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01103145

METHOD TO ESTIMATE THE WHITE POINT ON A DISPLAY DEVICE
VERFAHREN ZUM SCHATZUNG DES WEISSEN PUNKTES AUF EINEM ANZEIGEGERAT
PROCEDE PERMETTANT D'ESTIMER LE POINT BLANC D'UN DISPOSITIF D'AFFICHAGE
PATENT ASSIGNEE:

Adobe Systems, Inc., (1120813), 345 Park Avenue, San Jose, California
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PATENT (CC, No, Kind, Date): EP 1073883 A1 010207 (Basic)
WO 9956088 991104

APPLICATION (CC, No, Date): EP 98937246 980720; WO 98US15707 980720

PRIORITY (CC, No, Date): US 66080 980424

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G01D-018/00; G02B-007/00; G03F-003/08;

G09G-001/28; H04N-017/02; H04N-001/46; H04N-001/60

NOTE:

No A-document published by EPO

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 010207 A1 Published application with search report

Application: 991229 A1 International application. (Art. 158(1))

Search Report: 020102 A1 Date of drawing up and dispatch of
supplementary:search report 20011108

Examination: 010207 A1 Date of request for examination: 20001115

Application: 991229 A1 International application entering European
phase

LANGUAGE (Publication,Procedural,Application): English; English; English

INVENTOR:

... US)

DANCIU, Ioana, M ...

1/5,K/2 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00524736 **Image available**

METHOD TO ESTIMATE THE WHITE POINT ON A DISPLAY DEVICE
PROCEDE PERMETTANT D'ESTIMER LE POINT BLANC D'UN DISPOSITIF D'AFFICHAGE
Patent Applicant/Assignee:

ADOBE SYSTEMS INCORPORATED,
GENTILE Ronald S,
DANCIU Ioana M,

Inventor(s):

GENTILE Ronald S,
DANCIU Ioana M

Patent and Priority Information (Country, Number, Date):

Patent: WO 9956088 A1 19991104

Application: WO 98US15707 19980720 (PCT/WO US9815707)

Priority Application: US 9866080 19980424

Designated States: CA JP US AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL
PT SE

Main International Patent Class: G01D-018/00

International Patent Class: G02B-007/00; G03F-003/08; G09G-001/28;
H04N-017/02; H04N-001/46; H04N-001/60

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 3954

English Abstract

Methods and apparatus for estimating a white point of a display device (100) include displaying a plurality of gray patches on a display screen of the display device (106); requesting that a user select a patch corresponding to a neutral gray (108); and iteratively converging (112 and 116) to a patch where the estimated white point is the most neutral gray point (118).

French Abstract

L'invention concerne des procedes et des appareils permettant d'estimer le point blanc d'un dispositif d'affichage (100). Ces procedes consistent a afficher une pluralite de zones grises sur l'ecran d'affichage d'un dispositif (106); a demander qu'un utilisateur selectionne une zone correspondant a un gris neutre (108); et a focaliser de facon iterative (112 et 116) vers une zone ou le point blanc estime est le point gris le plus neutre (118).

Inventor(s):

... DANCIU Ioana M

1/5,K/3 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012828101 **Image available**

WPI Acc No: 1999-634333/199954

XRPX Acc No: N99-468378

White point estimating method for color calibration and color enhancement in digital imaging systems

Patent Assignee: ADOBE SYSTEMS INC (ADOB-N)

Inventor: DANCIU I M ; GENTILE R S

Number of Countries: 021 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9956088	A1	19991104	WO 98US15707	A	19980720	199954 B
US 6023264	A	20000208	US 9866080	A	19980424	200014
EP 1073883	A1	20010207	EP 98937246	A	19980720	200109
			WO 98US15707	A	19980720	
JP 2002513221	W	20020508	WO 98US15707	A	19980720	200234
			JP 2000546200	A	19980720	

Priority Applications (No Type Date): US 9866080 A 19980424

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9956088 A1 E 30 G01D-018/00

Designated States (National): CA JP US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU
MC NL PT SE

US 6023264 A G09G-005/10

EP 1073883 A1 E G01D-018/00 Based on patent WO 9956088
Designated States (Regional): DE FR GB
JP 2002513221 W 28 H04N-017/02 Based on patent WO 9956088

Abstract (Basic): WO 9956088 A1

NOVELTY - A user is requested to select a gray patch having neutral gray color from multiple gray patches displayed on a display screen. The steps of displaying gray patches are iterated and the user is requested to converge a gray patch where estimated white point is the most neutral point.

DETAILED DESCRIPTION - A white point axis of a chromaticity diagram is divided into n' samples whose corresponding correlated color temperature ranges between 4500-10,000 Kelvin. A gamma and phosphor values are set to display the corresponding values. RGB co-ordinates of gray patch are computed and transformation of a generated XYZ reference vector to RGB is performed.

An INDEPENDENT CLAIM is also included for the white point estimating system.

USE - For color calibration and color enhancement in digital imaging systems.

ADVANTAGE - As color calibration is less expensive than color measuring equipment, cost is reduced. As it is a software tool, it does not require any special hardware except the computer itself. As physical templates are not needed, the need for matching colors in different media is also eliminated. The user does not require detailed knowledge of color science, to perform color calibration.

DESCRIPTION OF DRAWING(S) - The figure shows the flow chart of a white point estimation process.

pp; 30 DwgNo 1/4

Title Terms: WHITE; POINT; ESTIMATE; METHOD; COLOUR; CALIBRATE; COLOUR; ENHANCE; DIGITAL; IMAGE; SYSTEM

Derwent Class: P81; P84; P85; S02

International Patent Class (Main): G01D-018/00; G09G-005/10; H04N-017/02

International Patent Class (Additional): G02B-007/00; G03F-003/08;

G06T-001/00; G09G-001/28; H04N-001/46; H04N-001/60

File Segment: EPI; EngPI

Inventor: DANCIU I M ...

1/5,K/4 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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011581030

WPI Acc No: 1997-557511/199751

XRAM Acc No: C97-177869

Reconditioning of welding point electrodes - with conical bore hole
Patent Assignee: DANCIU I (DANC-I); IONESCU P (IONE-I); POTBANICEANU M (POTB-I)

Inventor: DANCIU I ; IONESCU P; POTBANICEANU M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RO 111915	B	19970331	RO 1147	A	19960605	199751 B

Priority Applications (No Type Date): RO 1147 A 19960605

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
RO 111915	B		B23P-006/00	

Abstract (Basic): RO 111915 B

A cupric chromate tablet (2) is introduced inside bore hole of electrode (1), followed by pressing in stamper (3). Plastic deformation in cold causes pressure welding of tablet (2), also reducing electrode (1) to initial shape and size increasing necessary hardness in active electrode section.

USE - Process used to recondition point electrodes with conical bore hole.

Dwg.0/1

Title Terms: RECONDITIONING; WELD; POINT; ELECTRODE; CONICAL; BORE; HOLE

Derwent Class: M23; P55; P56

International Patent Class (Main): B23P-006/00

International Patent Class (Additional): B23K-009/28

File Segment: CPI; EngPI

Inventor: DANCIU I ...

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S1	255449	(RENDER? OR CREAT? OR GENERAT?) AND (IMAGE? OR PICTURE? OR PHOTO)
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S9	34242	(S2 OR S3) AND (RENDERING()INTENTS OR MATCHING()STYLES OR - GAMUT?? OR PERCEPTUAL OR SATURATION OR COLORIMETRIC)
S10	16	MACROMEDIA()FIREWORKS
S11	0	S4 AND S6 AND S7
S12	42	S7 AND S9
S13	29	S12 NOT PY=>2001
S14	20	RD S13 (unique items)
S15	0	S10 AND EXPORT()OPTIMIZATION()FEATURE?
S16	1	S10 AND EXPORT AND FEATURE?
S17	15	S10 NOT S16
S18	15	S17 NOT PY=>2001
S19	15	RD S18 (unique items)

14/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

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6290544 INSPEC Abstract Number: B1999-08-6135-140, C1999-08-5260B-171

Title: Selection for gamut mapping colour constancy

Author(s): Finlayson, G.; Hordley, S.

Author Affiliation: Colour & Imaging Inst., Derby Univ., UK

Journal: Image and Vision Computing vol.17, no.8 p.597-604

Publisher: Elsevier,

Publication Date: June 1999 Country of Publication: Netherlands

CODEN: IVCODK ISSN: 0262-8856

SICI: 0262-8856(199906)17:8L.597:SGMC;1-2

Material Identity Number: F298-1999-007

U.S. Copyright Clearance Center Code: 0262-8856/99/\$20.00

Language: English

Subfile: B C

Copyright 1999, IEE

Title: Selection for gamut mapping colour constancy

...Abstract: be constant under changing illumination conditions has led to the development of the so called **colour** constancy algorithms. Given an image recorded under an unknown illuminant, the task for a **colour** constancy algorithm is to recover an estimate of the scene illuminant. One such algorithm developed...

... by G.D. Finlayson (1996) exploits the constraint that under a canonical illuminant all surface **colours** fall within a maximal convex set-the canonical **gamut**. Given a set of image **colours** Forsyth's algorithm recovers the set of mappings which take these **colours** into the canonical **gamut**. This feasible set of mappings represents all illuminants, which are consistent with the recorded image **colours**. In this article we address the question of how best to select a single mapping...

... estimate of the unknown illuminant. We develop our approach in the context of Finlayson's **colour** -in-perspective algorithm. This algorithm performs a perspective transform on the sensor data to discard...

... distorted. Here, we argue that this distortion must be removed prior to carrying out map **selection** and **show** that this is easily achieved by inverting the perspective transform. A mean-selection criterion operating on non-perspective mapping space provides good **colour** constancy for a variety of synthetic and real images. Importantly, constancy performance surpasses all other...

...Descriptors: image **colour** analysis

Identifiers: **gamut** mapping...

... **colour** constancy...

...image **colours** ; ...

... **colour** -in-perspective

14/3,K/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

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5607418 INSPEC Abstract Number: B9707-6140C-562, C9707-5260B-335

Title: Selection of color samples based on genetic algorithm for color correction

Author(s): Kyu-Heon Lee; Choon-Woo Kim
Journal: Journal of the Korean Institute of Telematics and Electronics
vol.34S, no.1 p.94-104
Publisher: Korea Inst. Telematics & Electron,
Publication Date: Jan. 1997 Country of Publication: South Korea
CODEN: CKNOEZ ISSN: 1016-135X
SICI: 1016-135X(199701)34S:1L:94:SCSB;1-S
Material Identity Number: N523-97009
Language: Korean
Subfile: B C
Copyright 1997, IEE

Title: Selection of color samples based on genetic algorithm for color correction

Abstract: Most color imaging devices often exhibit color distortions due to the differences in realizable color gamuts and nonlinear characteristics of their components. In order to minimize color differences, it is desirable to apply color correction techniques. The first step of color correction is to select the subset of the color coordinates representing the input color space. The selected subset serves as so called 'color samples' to model the color distortion of a given color imaging device. The effectiveness of color correction is determined by the color samples utilized in the modeling as well as the applied color correction technique. This paper presents a new selection method for color samples based on genetic algorithm. In the proposed method, structure of strings are designed so that the selected color samples fully represent the characteristics of color imaging device and consisted of distinct color coordinates. To evaluate the performance of the selected color samples, they are utilized for three different color correction experiments. The experimental results are compared with the corresponding results obtained with the equally spaced color samples.

Identifiers: color sample selection...

... color correction...

... color imaging devices...

... color distortions...

... color coordinates...

...input color space

14/3,K/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

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5537746 INSPEC Abstract Number: B9705-6140C-163, C9705-1250-075

Title: Data and model-driven selection using color regions

Author(s): Syeda-Mahmood, T.F.

Author Affiliation: Xerox Webster Res. Center, NY, USA

Journal: International Journal of Computer Vision vol.21, no.1-2 p. 9-36

Publisher: Kluwer Academic Publishers,

Publication Date: Jan. 1997 Country of Publication: Netherlands

CODEN: IJCVEQ ISSN: 0920-5691

SICI: 0920-5691(199701)21:1/2L:9:DMDS;1-L

Material Identity Number: L537-97001

U.S. Copyright Clearance Center Code: 0920-5691/97/\$8.50

Language: English
Subfile: B C
Copyright 1997, IEE

Title: Data and model-driven selection using color regions

...Abstract: to come from a single object. In this paper we present an approach that uses **color** as a cue to perform selection either based solely on image-data (data-driven), or based on the knowledge of the **color** description of the model (model-driven). Specifically, the paper presents a method of **color** specification in terms of **perceptual color** categories and shows its relevance for the task of selection. The **color** categories are used to develop a fast region segmentation algorithm that extracts **perceptual color** regions in images. The **color** regions extracted form the basis for performing data and model-driven selection. Data-driven selection is achieved by selecting salient **color** regions as judged by a **color** -saliency measure that emphasizes attributes that are also important in human **color** perception. The approach to model-driven selection, on the other hand, exploits the **color** and other region information in the 3D model object to locate instances of the object...

... model instance in an image appear different from its original description. Finally, the utility of **color** -based **selection** is demonstrated by **showing** the extent of search reduction possible when **color** -based selection is integrated with a recognition system.

Descriptors: image **colour** analysis...

...Identifiers: **color** regions...

... **color** description...

... **color** specification...

... **perceptual color** categories...

... **color** -saliency measure...

... **color** -based selection

14/3,K/4 (Item 4 from file: 2)

DIALOG(R)File 2:INSPEC

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5027330 INSPEC Abstract Number: B9510-6140C-129, C9510-1250-083

Title: Explosion of multidimensional image histograms

Author(s): Mlsna, P.A.; Rodriguez, J.J.

Author Affiliation: Dept. of Electr. & Comput. Eng., Arizona Univ., Tucson, AZ, USA

Conference Title: Proceedings ICIP-94 (Cat. No.94CH35708) Part vol.3
p.958-62 vol.3

Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA

Publication Date: 1994 Country of Publication: USA 3 vol.
(liiii+992+1064+1050) pp.

ISBN: 0 8186 6952 7

U.S. Copyright Clearance Center Code: 0 8186 6950 0/94/\$4.00

Conference Title: Proceedings of 1st International Conference on Image Processing

Conference Sponsor: IEEE Signal Process. Soc

Conference Date: 13-16 Nov. 1994 Conference Location: Austin, TX, USA

Language: English

Subfile: B C

Copyright 1995, IEE

Abstract: Enhancement of multispectral and true- **color** images is frequently accomplished by histogram modification. The **color** components are generally separately adjusted within an appropriate, often perceptually based, **color** coordinate system. However, independent component modification is seldom able to exploit the full extent of the **RGB gamut** unless some **color** values are clipped at the **RGB** boundaries. Further improvement in **color** contrast is sometimes more important than preserving **perceptual** attributes. For example, **color** composites derived from multispectral images have little basis in human perception and thus need not be perceptually constrained. "Histogram explosion", a new concept for multivariate enhancement, enables the full **RGB** extent to be exploited without clipping. While the algorithm is not generally based upon a **perceptual** model, original hue values may be preserved with proper parameter **choices** . The paper **presents** details of the histogram explosion method, an analysis of its computational complexity, and some experimental...

...Descriptors: image **colour** analysis...

...Identifiers: true- **color** image enhancement...

... **color** components...

... **color** coordinate system...

... **color** contrast...

... **color** composites...

... **RGB** ;

14/3,K/5 (Item 5 from file: 2)

DIALOG(R)File 2:INSPEC

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4671649 INSPEC Abstract Number: A9412-8732-003, B9406-6140C-209

Title: The role of vision and color image processing

Author(s): Kusaka, H.

Author Affiliation: Dai Nippon Printing Co. Ltd., Tokyo, Japan

Journal: Journal of the Institute of Television Engineers of Japan
vol.47, no.12 p.1619-24

Publication Date: Dec. 1993 Country of Publication: Japan

CODEN: JITJA7 ISSN: 0386-6831

Language: Japanese

Subfile: A B

Title: The role of vision and color image processing

Abstract: **Color** information processing system by the visual sensation based on the step model resembles the signal configuration of the standard television system, 'NTSC' system. The author describes a **color** recognition and **color** television system, the standard chromaticity point for Hi-Vision (HDTV), media mix and **color** reproduction, frequency band regulation and chromatic blur, the masking effect of chromatic blur by superposition of luminance signals, compensation of chromaticity signal contour and **saturation** , character images and **color selection** , and flat panel **display** and **color** reproduction, referring to **color** reproduction in various displays such as PDP, LCD and CRT.

Descriptors: **colour** television...

... colour vision
Identifiers: colour information processing...
... color image processing...
... color recognition...
... color television system...
... color reproduction...
... saturation ; ...
... color selection

14/3,K/6 (Item 6 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03516097 INSPEC Abstract Number: A90003793, B90004077, C90002241
Title: Visualization of VDU colours by means of the CIELUV colour space
Author(s): Derefeldt, G.; Hedin, C.E.
Author Affiliation: Swedish Defence Res. Establ., Linkoping, Sweden
Journal: Displays, Technology and Applications vol.10, no.3 p. 134-46
Publication Date: July 1989 Country of Publication: UK
CODEN: DISPDJ ISSN: 0141-9382
U.S. Copyright Clearance Center Code: 0141-9382/89/030134-13\$03.00
Language: English
Subfile: A B C

Title: Visualization of VDU colours by means of the CIELUV colour space
...Abstract: CIE 1976 ($L^* u^* v^*$) system, abbreviated CIELUV, has been widely used for specification of colours, for specification of colour differences, and for selection of colours presented on CRT screens. However, VDU colours have not earlier been visually presented as a virtual colour atlas with coloured patches occupying the appropriate positions in the CIELUV colour space. In this paper, CIELUV is illustrated by displaying the colours of 4 096 digital RGB combinations in chroma ($C^*/\text{sub uv/}$)-lightness (L^*) diagrams at five-degree increments in hue angle ($h/\text{sub uv/}$) around the entire CIELUV hue circle. The 4 096 colours are quite nonuniformly distributed in the space. In particular, some yellows, blue-greens, and oranges are completely inaccessible by the VDU because of sparse sampling. Thus sampling, as well as gamut constraints, limit the colours accessible on a VDU.
...Descriptors: colour vision
Identifiers: VDU colours ; ...

...CIELUV colour space...
... colour differences...
...virtual colour atlas...
... gamut constraints

14/3,K/7 (Item 7 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02258346 INSPEC Abstract Number: B84032920, C84025208
Title: Chip for tuning and remote control suits low-cost TVs
Author(s): Gosch, J.
Journal: Electronics vol.57, no.5 p.5E-6
Publication Date: 8 March 1984 Country of Publication: USA
CODEN: ELECAD ISSN: 0883-4989
Language: English
Subfile: B C

...Abstract: the remote-control and tuning circuit the company is aiming at medium- and low priced **color** receivers, including portables. The SAA 1290 combines on a 34 mm/sup 2/ all the circuitry needed to implement remote control, station selection by voltage-synthesis tuning, band **selection** , and station **display** -functions that formerly required three ICs. The 1290 works together with the MDA2061 memory, an...

... 16 stations, as well as the values of four analog settings-for example, volume, brightness, **color saturation** , and contrast.

...Identifiers: **color saturation** ;

14/3,K/8 (Item 1 from file: 8)
DIALOG(R)File 8:Ei Compendex(R)
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

04204753 E.I. No: EIP95042668209
Title: Advantages of using flat-panel LCD for projection displays
Author: Wu, Dean C.
Corporate Source: LCD Technology Inc., Palo Alto, CA, USA
Conference Title: Projection Displays
Conference Location: San Jose, CA, USA Conference Date: 19950208-19950210
E.I. Conference No.: 22223
Source: Proceedings of SPIE - The International Society for Optical Engineering v 2407 1995. Society of Photo-Optical Instrumentation Engineers, Bellingham, WA, USA. p 228-230
Publication Year: 1995
CODEN: PSISDG ISSN: 0277-786X ISBN: 0-8194-1754-8
Language: English

...Abstract: nature of the LCD used in these projector panels, the response time, contrast ratio and **color gamut** are relatively limited. Whether the newly developed Active Addressing technology will be able to improve the response time, contrast ratio and **color gamut** of these passive matrix ZCDs remain to be proven. In the middle range of projection displays, Liquid Crystal Light Valves using **color** Active Matrix LCDs are rapidly replacing the dominant CRT based projectors. LCLVs have a number...

Descriptors: Liquid crystal **displays** ; Projection systems; **Selection** ; Fabrication; Optical devices; Single crystals

...Identifiers: liquid crystal displays; Projection displays; Liquid crystal light valves; Transmissive flat panel displays; Contrast ratio; **Color gamut** ; Active matrix liquid crystal displays; High definition television; Interactive video communication; Presentation systems

14/3,K/9 (Item 2 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)
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03037573 E.I. Monthly No: EIM9103-011489

Title: Palette. A color selection aid for VDU images.

Author: Hedin, Carl-Eric; Derfeldt, Gunilla

Corporate Source: Nat Defence Research Establishment, Linköping, Swed

Conference Title: Perceiving, Measuring, and Using Color

Conference Location: Santa Clara, CA, USA Conference Date: 19900215

E.I. Conference No.: 13891

Source: Proceedings of SPIE - The International Society for Optical Engineering v 1250. Publ by Int Soc for Optical Engineering, Bellingham, WA, USA. p 165-176

Publication Year: 1990

CODEN: PSISDG ISSN: 0277-786X ISBN: 0-8194-0297-4

Language: English

Title: Palette. A color selection aid for VDU images.

Abstract: The increasing research and debate during the last decade on the use of **color** as an information code indicates that **color** displays are here to stay--because they are preferred to monochrome displays and because they are generally more effective, provided the **color** coding is done properly. Depending on the function of the **colors**, the requirements for legibility, **color** differences, **color** contrasts, and **color** appearance may be widely different. To meet design requirements for video display units (VDUs), perceptually based **color** spaces are needed. During the last decade **color** appearance systems have come into use for **color** selection in **color** VDUs. These systems are gaining prominence over **colors** defined in numerical **RGB** values, which are not related to the perceptually relevant dimensions of hue, chroma (chromaticness, **saturation**), lightness, and blackness. We have developed a 'Palette' based on the Natural **Color** System (NCS) and on the CIE 1976 (L u v) system (CIELUV). With the 'Palette', **colors** can be selected interactively as well as automatically, according to a) NCS notations and/or CIELUV values, b) every day language or, c) the functional significance of the **color** in the image. A palette is presented in a frame around the image. The user is then free to try the different **colors** one at a time at his/her convenience. (Author abstract) 54 Refs.

Descriptors: **COLOR** --* ...

...Selection; DISPLAY DEVICES...

... **Color** Images

Identifiers: VDU (VIDEO DISPLAY UNITS); **COLOR** DISPLAYS

14/3,K/10 (Item 3 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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02358515 E.I. Monthly No: EIM8712-085987

Title: MODELING OF DISPLAY COLOR PARAMETERS AND ALGORITHMIC COLOR SELECTION.

Author: Silverstein, Louis D.; Lepkowski, James S.; Carter, Robert C.; Carter, Ellen C.

Corporate Source: Sperry Corp, Phoenix, AZ, USA

Conference Title: Advances in Display Technology VI.

Conference Location: Los Angeles, CA, USA Conference Date: 19860123

E.I. Conference No.: 09767

Source: Proceedings of SPIE - The International Society for Optical

Engineering v 624. Publ by SPIE, Bellingham, WA, USA p 26-35
Publication Year: 1986
CODEN: PSISDG ISSN: 0277-786X ISBN: 0-89252-659-9
Language: English

Title: MODELING OF DISPLAY COLOR PARAMETERS AND ALGORITHMIC COLOR SELECTION.

Abstract: **Color** selection is the process in which display visual parameters, operational ambient lighting characteristics, and human visual/**perceptual** functions are integrated for the purposes of specifying an optimized set of display **colors**. The present paper describes a unique, algorithmic approach to **color** selection which is based upon psychophysical models of **color** processing. The selection algorithm, currently implemented on a personal computer, seeks to develop **color** sets of specified numbers in which the minimum **color** difference between any pair of **colors** in the set is maximized. In addition, the computer program combines the selection algorithm with internally derived correction factors for **color** image field size, ambient lighting characteristics, and anomalous red-green **color** vision deficiencies of display operators. (Edited author abstract) 14 refs.

...Descriptors: Design; **COLOR** --...

...Computer Simulation; VISION, **COLOR** --

Identifiers: **DISPLAY COLORS SELECTION** ; **COLOR DIFFERENTIATION** ;
COMPUTERIZED COLOR SELECTION

14/3,K/11 (Item 4 from file: 8)
DIALOG(R)File 8:EI Compendex(R)
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01561375 E.I. Monthly No: EI8409087804 E.I. Yearly No: EI84020787

Title: LOW-COST COLORIMETER .

Author: Jones, N. B.; Riley, C.; Sheya, M. S.; Hosseinmardi, M. M.

Corporate Source: Univ of Sussex, Cent for Medical Research, Brighton, Engl

Source: Journal of Medical Engineering & Technology v 8 n 1 Jan-Feb 1984 p 9-14

Publication Year: 1984

CODEN: JMTEDN ISSN: 0309-1902

Language: ENGLISH

Title: LOW-COST COLORIMETER .

Abstract: Most chemical analyses carried out in the clinical laboratory are **colorimetric**. In practice, a chemical reaction, specific for the substance of interest, which yields a **colored** product, is carried out on the specimen. Concentration is proportional to the **color** density which is measured by some form optical device. A need for a **colorimeter** with low capital and maintenance costs has been suggested for countries with foreign exchange problems...

...light paths for test solution and reference solution and an electronic bridge circuit. It is **shown** that proper **selection** of the components will allow the cost objectives to be met and also provide acceptable...

...the references, 4 basic texts are recommended. The Appendix lists the operating sequence for the **colorimeter**, names of component suppliers in the United Kingdom, and component prices (in the UK, as...

Descriptors: **COLORIMETERS** --*

14/3,K/12 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2003 Inst for Sci Info. All rts. reserv.

07017609 Genuine Article#: 115KW No. References: 53
Title: A computational theory of visual attention
Author(s): Bundesen C (REPRINT)
Corporate Source: UNIV COPENHAGEN, PSYCHOL LAB, CTR VISUAL COGNIT, NJALSGADE
90/DK-2300 COPENHAGEN S//DENMARK/ (REPRINT)
Journal: PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY OF LONDON SERIES
B-BIOLOGICAL SCIENCES, 1998, V353, N1373 (AUG 29), P1271-1281
ISSN: 0962-8436 Publication date: 19980829
Publisher: ROYAL SOC LONDON, 6 CARLTON HOUSE TERRACE, LONDON SW1Y 5AG,
ENGLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: choice model for single-stimulus recognition with the
fixed-capacity independent race model (FIRM) for **selection** from
multi-element **displays**. TVA organizes a large body of experimental
findings on performance in visual recognition and attention tasks. A
recent development (CTVA) combines TVA with a theory of **perceptual**
grouping by proximity. CTVA explains effects of **perceptual** grouping
and spatial distance between items in multi-element displays. A new
account of spatial...
...Identifiers--PARTIAL-REPORT PARADIGM; FEATURE-INTEGRATION; GUIDED
SEARCH; RACE MODELS; SELECTION; CONJUNCTIONS; INFORMATION; TARGET;
COLOR; IDENTIFICATION

14/3,K/13 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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06763500 Genuine Article#: ZQ154 No. References: 62
**Title: Determinants of pollinator activity and flower preference in the
early spring blooming Crocus vernus**
Author(s): Totland O (REPRINT) ; Matthews I
Corporate Source: UNIV BERGEN, DEPT BOT, ALLEGATEN 41/N-5007 BERGEN//NORWAY/
(REPRINT)
Journal: ACTA OECOLOGICA-INTERNATIONAL JOURNAL OF ECOLOGY, 1998, V19, N2 (
MAR-APR), P155-165
ISSN: 1146-609X Publication date: 19980300
Publisher: GAUTHIER-VILLARS/EDITIONS ELSEVIER, 23 RUE LINOIS, 75015 PARIS,
FRANCE
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

...Abstract: and also whether bees discriminate among flowers on the basis
of floral display size and **colour**. Flower density was much more
important than temperature, humidity, and time of day...
...visits during one hour; thus there seems to be little intraspecific
competition for pollinators despite **saturation** of the pollinator
pool. There was no significant difference between the size or **colour**
of flowers that were visited, approached, or ignored by bees, and
duration of visits was not related to floral display size or **colour**.
Thus, on average *A. mellifera* did not appear to discriminate between
flowers on the basis of floral display. Consequently, the data indicate
that there is no pollinator mediated **selection** on floral **display**,
driven by discriminating pollinators. (C) Elsevier, Paris.

14/3,K/14 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2003 Inst for Sci Info. All rts. reserv.

03236497 Genuine Article#: NP558 No. References: 3
Title: A METHOD FOR DETECTING DNA POLYMORPHISM IN LARGE POPULATIONS
Author(s): AITKEN SA; TINKER NA; MATHER DE; FORTIN MG
Corporate Source: MCGILL UNIV,DEPT PLANT SCI,21111 LAKESHORE/ST ANNE
BELLEVUE H9X 3V9/PQ/CANADA/; MCGILL UNIV,DEPT PLANT SCI/ST ANNE
BELLEVUE H9X3V9/PQ/CANADA/
Journal: GENOME, 1994, V37, N3 (JUN), P506-508
ISSN: 0831-2796
Language: ENGLISH Document Type: NOTE (Abstract Available)

...Abstract: be used for fine mapping a particular area of a genome or for marker-assisted **selection**. We **present** an approach for screening individual plants with polymorphic markers that facilitates phenotyping in large populations...

...plants to be tested. DNA is obtained by a simple two-tube purification method. The **colorimetric** detection of alleles on the blots is more reliable, and more amenable to automation, than...

14/3,K/15 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2003 Inst for Sci Info. All rts. reserv.

03224458 Genuine Article#: NP004 No. References: 15
Title: ASSESSING SHADE DIFFERENCES IN ACRYLIC RESIN DENTURE AND NATURAL TEETH
Author(s): YOUNG L; GLAROS AG; MOORE DJ; COLLINS JF
Corporate Source: UNIV MISSOURI,SCH DENT,DEPT REMOVABLE PROSTHODONT,650
25TH ST/KANSAS CITY//MO/64108; UNIV MISSOURI,SCH DENT,DEPT BEHAV
SCI/KANSAS CITY//MO/64110
Journal: JOURNAL OF PROSTHETIC DENTISTRY, 1994, V71, N6 (JUN), P575-580
ISSN: 0022-3913
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

...Abstract: assess shade differences in acrylic resin denture and natural teeth. The first two examine the **perceptual** errors made by experienced dentists in their use of a manufacturer-provided shade guide for...

...were similar to shades found in natural teeth. The results from the last two experiments **showed** that shade **selection** can be facilitated by use of a rearranged set of shade guide tabs. The results...

...darken with age; however, selections made for denture teeth tend to be relatively constant in **color**, despite the age of the patient. Differences for gender and complexion do not appear to...

...Identifiers-- **COLOR**

14/3,K/16 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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00826245 Genuine Article#: EZ687 No. References: 72

Title: THE FLANKER COMPATIBILITY EFFECT AS A FUNCTION OF VISUAL ANGLE,
ATTENTIONAL FOCUS, VISUAL TRANSIENTS, AND PERCEPTUAL LOAD - A SEARCH
FOR BOUNDARY-CONDITIONS

Author(s): MILLER J

Corporate Source: UNIV CALIF SAN DIEGO, DEPT PSYCHOL, C-009/LA

JOLLA//CA/92093; UNIV AMSTERDAM, DEPT PSYCHOL/AMSTERDAM//NETHERLANDS/

Journal: PERCEPTION & PSYCHOPHYSICS, 1991, V49, N3, P270-288

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Title: THE FLANKER COMPATIBILITY EFFECT AS A FUNCTION OF VISUAL ANGLE,
ATTENTIONAL FOCUS, VISUAL TRANSIENTS, AND PERCEPTUAL LOAD - A SEARCH
FOR BOUNDARY-CONDITIONS

...Abstract: the separation between target and flankers increases, the
effect appears to result from imperfect early **selection**
(attenuation). In the **present** experiments, several features of the
focused attention paradigm were examined, in order to determine whether

...Identifiers--SELECTIVE-ATTENTION; SPATIAL CHARACTERISTICS; INFORMATION;
FIELD; VISION; **COLOR**; TASK; INTERFERENCE; AUTOMATICITY; ACTIVATION

14/3,K/17 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
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01722434 ORDER NO: AADAA-I9948345

Objects and attention (Perception)

Author: Scholl, Brian Jeffrey

Degree: Ph.D.

Year: 1999

Corporate Source/Institution: Rutgers The State University of New Jersey
- New Brunswick (0190)

Source: VOLUME 60/11-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
PAGE 5806. 200 PAGES

...italic> of attentional selection. Traditional models characterized
attention in spatial terms, whereas recent models have **viewed** the units
of **selection** as discrete visual <italic>objects</italic>. This
dissertation addresses the question of what exactly visual...

...described which explore the nature of visual objecthood. Connectedness,
part-structure, and other types of **perceptual** grouping were found to
mediate what types of feature clusters can be independently attended. As...

...more robustly encoded into visual working memory than were
'featural' properties such as **color** and shape. All
experiments employed variations on the multiple-object tracking task, which
involves a...

...results is clear: among the most crucial tasks of the study of any
cognitive or **perceptual** process is to determine the nature of the
fundamental units over which it operates. In...

14/3,K/18 (Item 2 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
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01393062 ORDER NO: AAD95-03029

AN EXPERIMENTAL STUDY OF SCOTOPIC SENSITIVITY/IRLEN SYNDROME IN LEARNING
DISABLED STUDENTS (SCOTOPIC SENSITIVITY, IRLLEN SYNDROME, DISABILITIES,
VISUAL PERCEPTION, SPECTRAL MODIFICATION)

Author: FARBER, KATHLEEN HICKAM

Degree: ED.D.

Year: 1994

Corporate Source/Institution: PORTLAND STATE UNIVERSITY (0180)

Source: VOLUME 55/09-A OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 2791. 243 PAGES

...Scotopic Sensitivity/Irlen Syndrome. The treatment, referred to as spectral modification, involved the use of **colored** transparent overlays for reading by four elementary school children in their actual school environments.

The...

...systematically examined over time in the school setting, and from the practitioner's point of **view**.

Sample **selection** involved pre-screening and screening phases. The pre-screening procedures of teacher recommendation and file review resulted in a pool of 26 children who were screened with the Irlen Differential **Perceptual** Interview Survey. Four subjects were selected who were in separate school settings, who demonstrated Irlen...

14/3,K/19 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

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12971928 PASCAL No.: 97-0249468

Data and model-driven selection using color regions

Object recognition research at MIT

TANVEER FATHIMA SYEDA-MAHMOOD

GRIMSON W E L, introd

Xerox Webster Research Center, 800 Phillips Road, Webster NY 14580,
United States

MIT Artificial Intelligence Laboratory, Cambridge, Massachusetts, United
States

Journal: International journal of computer vision, 1997, 21 (1-2) 9-36

Language: English

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Data and model-driven selection using color regions

... to come from a single object. In this paper we present an approach that uses **color** as a cue to perform selection either based solely on image-data (data-driven), or based on the knowledge of the **color** description of the model (model-driven). Specifically, the paper presents a method of **color** specification in terms of **perceptual color** categories and shows its relevance for the task of selection. The **color** categories are used to develop a fast region segmentation algorithm that extracts **perceptual color** regions in images. The **color** regions extracted form the basis for performing data and model-driven selection. Data-driven selection is achieved by selecting salient **color** regions as judged by a **color** -saliency measure that emphasizes attributes that are also important in human **color** perception. The approach to model-driven selection, on the other hand, exploits the **color** and other region information in the 3d model object to locate instances of the object...

... model instance in an image appear different from its original

description. Finally, the utility of **color** -based **selection** is demonstrated by **showing** the extent of search reduction possible when **color** -based selection is integrated with a recognition system.

English Descriptors: Image processing; Pattern recognition; Segmentation; Image recognition; **Color** image; **Color** ; Modeling; Algorithm; System performance; Computational complexity

...French Descriptors: image; Reconnaissance forme; Segmentation; Reconnaissance image; Image couleur; Couleur; Modelisation; Algorithme; Performance systeme; Complexite calcul; **Color** specification; **Color** region segmentation; **Color** space; Data model

Spanish Descriptors: Procesamiento imagen; Reconocimiento patron; Segmentacion; Reconocimiento imagen; Imagen **color** ; **Color** ; Modelizacion; Algoritmo; Eficacia sistema; Complejidad computacion

14/3,K/20 (Item 1 from file: 248)
DIALOG(R) File 248:PIRA
(c) 2003 Pira International. All rts. reserv.

00387087 Pira Acc. Num.: 20010263

Title: **THE COLOR HARMONY MANUAL, A COLOR ATLAS BASED ON THE OSTWALD COLOR SYSTEM**

Authors: Granville W C

Source: Color Res. Appl. vol. 19, no. 2, Apr. 1994, pp 77-98

ISSN: 0361-2317

Publication Year: 1994

Document Type: Journal Article

Language: English

Title: **THE COLOR HARMONY MANUAL, A COLOR ATLAS BASED ON THE OSTWALD COLOR SYSTEM**

Abstract: The **Color** Harmony Manual, out of print since 1972, is a **colour** atlas based on the Ostwald **colour** system, and used since 1942 for **colour** specification and **selection**. The **presentation** covers the history, **colorimetric** basis and specification, and how to use the several editions. The Manual comprised 12 handbooks showing pairs of complementary hues. The first edition, 1942, contained 680 **colour** chips with their notations; a notation diagram identified **colours** in hue triangles. The **Colour** Harmony Index involved banks of push-button operated leaves, each showing different hues of eight **colours** of identical notation. The chips, matte on one side, gloss on the other, were removable. The hue triangles, and **colour** solids made with them, elucidate sensory **colour** representative **colorimetric** data, and for the third edition, are included. (16 fig, 4 tab, 15 ref)

Trade Names: **COLOR HARMONY MANUAL**

Descriptors: **COLOUR REPRODUCTION**

?

16/7,K/1 (Item 1 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)
(c) 2002 The Gale Group. All rts. reserv.

06678718

Macromedia Fireworks fires up Web graphics
SINGAPORE: NEW FIREWORKS LAUNCHED BY MACROMEDIA
Asia Computer Weekly (XCF) 23 Aug 1998 P.14
Language: ENGLISH

The new Fireworks tool has been launched in Singapore by Macromedia, at a cost of S\$ 495 (US\$ 295). Fireworks provides a unified platform that builds and optimises high-quality bitmapped Web graphics. The Fireworks tool comes with the following functions: - a button generating **feature** simplifies Web pages by creating interactive buttons - a visual **export** preview window updates file size display and download time - a slicing **feature** separates images for rapid downloads - extensive compression regulation - GIF animations playback

Macromedia Fireworks fires up Web graphics

... quality bitmapped Web graphics. The Fireworks tool comes with the following functions: - a button generating **feature** simplifies Web pages by creating interactive buttons - a visual **export** preview window updates file size display and download time - a slicing **feature** separates images for rapid downloads - extensive compression regulation - GIF animations playback
?

19/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6808362 INSPEC Abstract Number: C2001-02-6130B-115

Title: Fireworks' new moves. Expand your animation horizons with version 3

Author(s): Cohen, S.

Journal: Macworld vol.17, no.5 p.101-3

Publisher: Mac Publishing,

Publication Date: May 2000 Country of Publication: USA

CODEN: MACWEA ISSN: 0741-8647

SICI: 0741-8647(200005)17:5L.101:FMEY;1-R

Material Identity Number: F195-2000-015

Language: English

Subfile: C

Copyright 2001, IEE

...Abstract: But despite the pleasing results, creating those first animations was no picnic. The author used **Macromedia Fireworks 1**, which required a cumbersome set of steps to set up an animation and couldn't...

...Identifiers: **Macromedia Fireworks 1**

19/3,K/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6247372 INSPEC Abstract Number: C1999-06-7170-009

Title: Banners 1-2-3 with Illustrator, Photoshop, and Fireworks

Author(s): Olsen, E.

Journal: WEB Techniques vol.4, no.4 p.69-72, 74-5

Publisher: Miller Freeman,

Publication Date: April 1999 Country of Publication: USA

CODEN: WETEFA ISSN: 1086-556X

SICI: 1086-556X(199904)4:4L.69:B1WI;1-M

Material Identity Number: F184-1999-003

Language: English

Subfile: C

Copyright 1999, IEE

...Abstract: Rubin Postaer Interactive agency in the development of banner ads (including Adobe Illustrator, Adobe Photoshop, **Macromedia Fireworks** and Macromedia Freehand), and provide step-by-step instructions on how to do it yourself...

...Identifiers: **Macromedia Fireworks ;**

19/3,K/3 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6072172 INSPEC Abstract Number: C9812-7230-005

Title: Photoshop 5.0 upgrade?

Author(s): Weinman, L.

Journal: WEB Techniques vol.3, no.10 p.20, 22-3

Publisher: Miller Freeman,

Publication Date: Oct. 1998 Country of Publication: USA

CODEN: WETEFA ISSN: 1086-556X

SICI: 1086-556X(199810)3:10L.20:PU;1-C

Material Identity Number: F184-98009

Language: English
Subfile: C
Copyright 1998, IEE

...Abstract: be useful to review the new features. She also compares these features to those of **Macromedia Fireworks** (www.macromedia.com) and Adobe ImageReady (www.adobe.com), which have been discussed previously (see...

...Identifiers: **Macromedia Fireworks** ;

19/3,K/4 (Item 4 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6049561 INSPEC Abstract Number: C9811-6130B-041
Title: Fireworks vs. ImageReady [World Wide Web graphics tools]
Author(s): Weinman, L.
Journal: WEB Techniques vol.3, no.9 p.14, 16-18
Publisher: Miller Freeman,
Publication Date: Sept. 1998 Country of Publication: USA
CODEN: WETEFA ISSN: 1086-556X
SICI: 1086-556X(199809)3:9L.14:FIWW;1-C
Material Identity Number: F184-98008
Language: English
Subfile: C
Copyright 1998, IEE

...Identifiers: **Macromedia Fireworks** ;

19/3,K/5 (Item 5 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5968436 INSPEC Abstract Number: C9808-6115-029
Title: Dreamweaver a new state of consciousness?
Author(s): Wilcox, S.
Journal: WEB Techniques vol.3, no.7 p.59-62
Publisher: Miller Freeman,
Publication Date: July 1998 Country of Publication: USA
CODEN: WETEFA ISSN: 1086-556X
SICI: 1086-556X(199807)3:7L.59:DSC;1-8
Material Identity Number: F184-98006
Language: English
Subfile: C
Copyright 1998, IEE

...Identifiers: **Macromedia Fireworks** image editor

19/3,K/6 (Item 6 from file: 2)
DIALOG(R)File 2:INSPEC
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5955095
Title: Web graphics: hands-on tests of top programs
Author(s): Rossello, R.
Journal: Seybold Report on Internet Publishing vol.2, no.10 p.9-17
Publisher: Seybold Publications,

Publication Date: June 1998 Country of Publication: USA
CODEN: SRIPFZ ISSN: 1090-4808
SICI: 1090-4808(199806)2:10L.9:GHTP;1-R
Material Identity Number: F334-98006
Language: English
Subfile: D
Copyright 1998, IEE

...Identifiers: **Macromedia Fireworks** ;

19/3,K/7 (Item 1 from file: 95)
DIALOG(R)File 95:TEME-Technology & Management
(c) 2003 FIZ TECHNIK. All rts. reserv.

01375215 20000102956
Des Web-Designers Handwerkskiste. Die Grundausrüstung fuer Web-Design
Hoffmann, A
PC Magazin, Poing, v53, nSpezial 17, Internet kreativ, pp12-14,16,18-21,
1999
Document type: journal article Language: German
Record type: Abstract
ISSN: 0933-1557

ABSTRACT:
...der Generierung interaktiver Multimedia-Animationen), MetaCreations
Headline Studio (ein exzellentes Werkzeug fuer den taeglichen Gebrauch),
Macromedia Fireworks 2 (Komplettlösung fuer Webgrafiker), Ulead
PhotoImpact 5.0 (preisgünstige Kombination aus Bildbearbeitungssoftware
und Web-Toolbox...

19/3,K/8 (Item 1 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)
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09210974
Release of new Dreamweaver, Fireworks
MALAYSIA: WEBSITE DESIGNING TOOL FROM MACROMEDIA
New Straits Times (XAS) 13 Dec 1999 Computimes,p.12
Language: ENGLISH

Two new website designing tool will be launched in Malaysia in December
1999 by **Macromedia . Fireworks 3**, tagged at RM 990 with upgrades costing
RM 490, is used for web graphic...

19/3,K/9 (Item 2 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)
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09103878
Internet solutions for Web designers
MALAYSIA: DREAM TEAM PACKAGE FOR WEB DESIGNERS
New Straits Times (XAS) 13 May 1999 Computimes,p.38
Language: ENGLISH

... Bhd (Malaysia). The Web solution package, called Dream Team, will
consist of Marcomedia Flash 3, **Macromedia Fireworks 2** and Macromedia
Dreamweaver 2. The Macromedia Flash 3 is a standard tool for animation and

vector graphics while the **Macromedia Fireworks 2** can be used to create special effects like shadows, embosses and glows. The Dreamweaver...

19/3,K/10 (Item 1 from file: 483)
DIALOG(R)File 483:Newspaper Abs Daily
(c) 2003 ProQuest Info&Learning. All rts. reserv.

05490622

Working it out: Twin speaks Robin Guthrie is a musician and record producer. He is a founder member of The Cocteau Twins

Mackintosh, Hamish

Guardian, Sec ONLINE, p 4, col 1

Mar 11, 1999

ISSN: 0261-3007 NEWSPAPER CODE: MG

DOCUMENT TYPE: Interview; Newspaper

LANGUAGE: English RECORD TYPE: ABSTRACT

LENGTH: Medium (6-18 col inches)

...ABSTRACT: what I use everyday. In the office Microsoft Outlook and for graphics and Web stuff **Macromedia Fireworks** is fast becoming a favourite. I've got loads of little weird things that nobody...

19/3,K/11 (Item 1 from file: 248)
DIALOG(R)File 248:PIRA
(c) 2003 Pira International. All rts. reserv.

00579613 Pira Acc. Num.: 20178874

Title: Buildingsites

Authors: Hodge K

Source: Mac Format no. 96, Nov. 2000, pp 23-28

Publication Year: 2000

Document Type: Journal Article

Language: English

...Abstract: A colour scheme can be evolved by choosing two main colours and two-four shades. **Macromedia Fireworks** or Adobe ImageReady can be used to create main page graphics. Further dressing can include...

19/3,K/12 (Item 2 from file: 248)
DIALOG(R)File 248:PIRA
(c) 2003 Pira International. All rts. reserv.

00559998 Pira Acc. Num.: 20160402

Title: Dream on

Authors: Negrino T

Source: Macworld (UK) Mar. 2000, pp 95-100

Publication Year: 2000

Document Type: Journal Article

Language: English

...Abstract: Quick Tag editor, the History Palette and the HTML Styles palette. A separate section reviews **Macromedia Fireworks 3**, a Web graphics utility.

19/3,K/13 (Item 3 from file: 248)
DIALOG(R)File 248:PIRA

(c) 2003 Pira International. All rts. reserv.

00543400 Pira Acc. Num.: 20144244

Title: Adobe Photoshop 5.5

Authors: Eccles S

Source: Printweek 9 July 1999, pp 28-29

ISSN: 0987-987X

Publication Year: 1999

Document Type: Journal Article

Language: English

...Abstract: compatibility, and Internet tools. Alternatives to Photoshop are outlined, focusing on Corel Photo-Paint 9, **Macromedia FireWorks 2.0** and Spaceward Graphics Satori range.

19/3,K/14 (Item 4 from file: 248)

DIALOG(R)File 248:PIRA

(c) 2003 Pira International. All rts. reserv.

00537674 Pira Acc. Num.: 20138871

Title: Web graphics tools: what's the best one for each job

Authors: Busch D D

Source: Internet World (US2) vol. 5, no. 18, 10 May 1999, pp 42-43

ISSN: 1081-3071

Publication Year: 1999

Document Type: Journal Article

Language: English

...Abstract: tools, alternatives to image editors, special effects and animation tools, and three dimensional software tools. **Macromedia Fireworks 2** was considered to be the best product in the automated graphics tool category and...

19/3,K/15 (Item 5 from file: 248)

DIALOG(R)File 248:PIRA

(c) 2003 Pira International. All rts. reserv.

00518823 Pira Acc. Num.: 20119105

Title: In the fast lane

Authors: Clarke N

Source: MacUser vol. 14, no. 18, 4 Sept. 1998, pp 73, 75-76, 78-79

ISSN: 0269-3275

Publication Year: 1998

Document Type: Journal Article

Language: English

...Abstract: Web design and the new products are compared and evaluated. Adobe ImageReady 1.0 and **Macromedia Fireworks 1.0** offer a one stop solution to Web graphic design and the programs optimise...

?

File 9:Business & Industry(R) Jul/1994-2003/May 14
 (c) 2003 Resp. DB Svcs.
 File 15:ABI/Inform(R) 1971-2003/May 15
 (c) 2003 ProQuest Info&Learning
 File 16:Gale Group PROMT(R) 1990-2003/May 14
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 (c) 2003 The Dialog Corp.
 File 47:Gale Group Magazine DB(TM) 1959-2003/May 13
 (c) 2003 The Gale group
 File 75:TGG Management Contents(R) 86-2003/May W1
 (c) 2003 The Gale Group
 File 80:TGG Aerospace/Def.Mkts(R) 1986-2003/May 14
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 (c) 2003 The HW Wilson Co.
 File 112:UBM Industry News 1998-2003/May 15
 (c) 2003 United Business Media
 File 141:Readers Guide 1983-2003/Mar
 (c) 2003 The HW Wilson Co
 File 148:Gale Group Trade & Industry DB 1976-2003/May 14
 (c)2003 The Gale Group
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 File 608:KR/T Bus.News. 1992-2003/May 15
 (c)2003 Knight Ridder/Tribune Bus News
 File 610:Business Wire 1999-2003/May 15
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 File 621:Gale Group New Prod.Annou.(R) 1985-2003/May 14
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 File 635:Business Dateline(R) 1985-2003/May 14
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(c) 1999 Business Wire
File 813:PR Newswire 1987-1999/Apr 30
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? ds

Set	Items	Description
S1	227354	(RENDER? OR CREAT? OR GENERAT?) (3N) (IMAGE? OR PICTURE? OR - PHOTO)
S2	3617365	COLOR? OR COLOUR?
S3	38823	RGB OR CMYK OR RED()GREEN()BLUE OR CYAN()MAGENTA()YELLOW()- KEY
S4	13323	(S2 OR S3) (3N) (MAP OR MAPPING)
S5	693267	PALETTE OR MENU
S6	27483	(SHADING OR SHADES OR CONTRAST OR GRADATION?) (5N) (MODE?? OR OPTIONS)
S7	61344	(PREVIEW? OR PRE()VIEW? OR PRESENT? OR DISPLAY? OR SHOW? OR VIEW?) (3N) (SELECTION? OR CHOICES)
S8	8	(PLURAL? OR SEVERAL OR MANY OR MULTI OR MULTIPLE OR ARRAY)- (3N)DIFFERENCES(3N)S1
S9	15781	(S2 OR S3) (7N) (RENDERING()INTENTS OR MATCHING()STYLES OR G- AMUT?? OR PERCEPTUAL OR SATURATION OR COLORIMETRIC)
S10	77	MACROMEDIA(S) FIREWORKS(S) EXPORT(S) OPTIMI?
S11	63	S10 NOT PY=>2001
S12	22	RD S11 (unique items)
S13	0	S4(S)S5(S)S6(S)S7
S14	6	S7(5N)S9
S15	6	S14 NOT S12
S16	6	RD S15 (unique items)
S17	0	S1(3N)S7(S) (RENDERING()INTENTS OR MATCHING()STYLES OR GAMU- T??)

12/3,K/1 (Item 1 from file: 9)

DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

2173478 Supplier Number: 02173478 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Macromedia Debuts Fireworks, Upgrades Flash

(Macromedia Inc introduces Macromedia Flash 3, design tool for interactive vector graphics and animation on the Web)

EMedia Professional, v 11, n 7, p 23+

July 1998

DOCUMENT TYPE: Journal; News Brief ISSN: 1090-946X (United States)

LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 292

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...or for an upgrade price of \$99 from any previous version of Flash or FutureSplash.

Macromedia has also introduced **Fireworks**, a production tool that provides a unified environment for creating, **optimizing**, and producing high-quality graphics for the Web. Created to address the needs of professional Web designers, the new tool incorporates features such as a visual **export** preview, complete control over compression and color palettes, automatic generation of button states and JavaScript rollovers, and editable text and effects. To help designers balance image quality and bandwidth requirements, **Fireworks** displays file size and download time data, updating these dynamically as the user **optimizes** the graphic. **Fireworks** also provides a built-in "Image Map layer" to facilitate assignment of URL links, as...

...hit states for button graphics, along with the JavaScript code to control the button behavior. **Fireworks** for Windows 95, Windows NT, and Macintosh PowerPC is available for an estimated street price...

12/3,K/2 (Item 1 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

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07781977 Supplier Number: 64827744 (USE FORMAT 7 FOR FULLTEXT)

Liven Up Your Web Creations. (Software Review) (Evaluation)

Glinert, Susan

Computer Shopper, p124

Oct 1, 2000

Language: English Record Type: Fulltext

Article Type: Evaluation

Document Type: Magazine/Journal; Trade

Word Count: 384

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

For the last several years, **Macromedia** has been the leading supplier of high-end multimedia Web-design tools. But its time...

...the hill may be coming to an end. Adobe Systems' LiveMotion lets you design and **optimize** animated rollovers, navigation bars, and other graphics for **export** to Flash or GIF format, and is the first product that truly goes head to head with **Macromedia**'s multimedia-editing program,

Fireworks .

12/3,K/3 (Item 2 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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07376769 Supplier Number: 59875129 (USE FORMAT 7 FOR FULLTEXT)
web graphics. (web graphics software packages) (Software Review) (Evaluation)
SIMONE, LUISA
PC Magazine, v17, n19, p197
Nov 3, 1998
Language: English Record Type: Fulltext Abstract
Article Type: Evaluation
Document Type: Magazine/Journal; General Trade
Word Count: 11467

... easy to reshape paths, and Fireworks supports both Adobe Photoshop plug-ins and Macromedia Xtras.

Fireworks uses PNG as its native format, but it can import a wide variety of bitmapped and vector file formats, including layered PSD, Adobe Illustrator, CorelDraw, and **Macromedia** FreeHand. **Fireworks** performs all conversions, color reductions, and compression operations in the **Export** dialog box. It can display a split-screen preview with up to four variations of...

...masks to create transparency, you can choose a transparent color or alpha channel in the **Export** dialog box. If you find a perfect **optimization** setting, you can save it.

Fireworks produced good but not stellar GIF output on our...

12/3,K/4 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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07271202 Supplier Number: 61721235 (USE FORMAT 7 FOR FULLTEXT)
The CheckOut.com Entertainment Network Elevates Visitor Satisfaction With Macromedia Solutions.
PR Newswire, p8737
April 18, 2000
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 667

... are then woven into the page, thus making it more personally relevant to the visitor.

Macromedia Generator helps enable CheckOut to present a fresh and engaging mix of content every day by automatically serving dynamic graphical content and decreasing development resources. **Macromedia Fireworks** helps CheckOut's team of artists gain control over color palettes and compression settings enabling the site to create high-quality images at the smallest file sizes. Furthermore, **Fireworks** allows CheckOut to easily import various graphic formats, **optimize** and then **export** those graphics to **Macromedia** Flash. "The seamless integration between **Macromedia** products brings us increased efficiency and better site management," added Mesrobian. CheckOut also uses **Macromedia** Dreamweaver to build the site's Web pages so they can be then exported into...

12/3,K/5 (Item 4 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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06249109 Supplier Number: 54211075 (USE FORMAT 7 FOR FULLTEXT)
Light Up Your Web Site. (Macromedia Fireworks 2.0) (Evaluation)
Simone, Luisa
PC Magazine, p44(1)
April 20, 1999
Language: English Record Type: Fulltext
Article Type: Evaluation
Document Type: Magazine/Journal; General Trade
Word Count: 827

... designers create an exceptionally interactive interface without writing JavaScript code manually.

To assist professional developers, **Macromedia** makes it possible to integrate **Fireworks** 2 more fully into the HTML workflow. **Fireworks** can **export** Cascading Style Sheets (CSS) or specific flavors of HTML **optimized** for **Macromedia** Dreamweaver or Microsoft FrontPage. For example, a **Fireworks** composition output as Dreamweaver 2 HTML or a Dreamweaver Library will appear as a native...

12/3,K/6 (Item 5 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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06190983 Supplier Number: 54095998 (USE FORMAT 7 FOR FULLTEXT)
Macromedia Ships Fireworks 2.
PR Newswire, p4904
March 15, 1999
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 731

... integrated, making the creation of Web pages even more streamlined."

New Features in Fireworks 2

Fireworks 2 has several new features for designing, **optimizing** and integrating Web site graphics. With **Fireworks** 2, Web designers can create graphics with sophisticated behaviors such as rollovers, then **export** those graphics and code in a format immediately recognized by the designer's HTML editor -- without the need for time-consuming modification. Integration with **Macromedia** Dreamweaver 2 enables designers to easily launch the full set of **Fireworks** editing features, then return to Dreamweaver once graphics work is complete. For sitewide editing and rapid updates, **Fireworks** 2 features graphic and text styles that can be shared among workgroups to ensure consistent...
...text, fonts, colors, and URLs. Along with an improved user interface and ease-of-use **optimizations**, **Fireworks** 2 enables Web site creators to progress from concepts to completed Web graphics in one...

12/3,K/7 (Item 6 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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05837470 Supplier Number: 50349098 (USE FORMAT 7 FOR FULLTEXT)
Macromedia Fireworks 1.0

Ozer, Jan
PC Magazine, v17, n19, p214
Nov, 1998
Language: English Record Type: Fulltext
Article Type: Article
Document Type: Magazine/Journal; General Trade
Word Count: 625

... easy to reshape paths, and Fireworks supports both Adobe Photoshop plug-ins and Macromedia Xtras.

Fireworks uses PNG as its native format, but it can import a wide variety of bitmapped and vector file formats, including layered PSD, Adobe Illustrator, CorelDraw, and **Macromedia** FreeHand. **Fireworks** performs all conversions, color reductions, and compression operations in the **Export** dialog box. It can display a split-screen preview with up to four variations of...

...masks to create transparency, you can choose a transparent color or alpha channel in the **Export** dialog box. If you find a perfect **optimization** setting, you can save it.

Fireworks produced good but not stellar GIF output on our...

12/3,K/8 (Item 7 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

05687094 Supplier Number: 53570297 (USE FORMAT 7 FOR FULLTEXT)
Jupiter Watch.(Pseudo web service)
Interactive Content, pNA
May, 1998
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 956

... mold counts and UV-ray levels. TOOL: Does a new medium demand a new tool? **Macromedia** is betting that the Web demands its newest tool, **Fireworks**. The program is designed solely for creating and **optimizing** Web graphics. Many of the features will look familiar to Freehand, Illustrator, or Photoshop users...

...in and fiddle around, but it will take some time to learn the newer features. **Fireworks** files combine vector graphics (e.g., Illustrator and Freehand files) and bitmaps (e.g. Photoshop files) in one editable file stored in the .PNG (portable network graphics) format. **Fireworks** is targeted at the professional Web designer, but has features designed for new users, such as an **export** Wizard.0/00 **Macromedia** is keen on tying **Fireworks** in with its visual page development tool Dreamweaver. The program even has an option to **export** files **optimized** for Dreamweaver. The other notable **export** options are ,smart slicing0/00 (chopping large images into numerous smaller ones for downloading) and...

12/3,K/9 (Item 8 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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05685482 Supplier Number: 53239692 (USE FORMAT 7 FOR FULLTEXT)
NEW MACROMEDIA TOOL PROVIDES UNIFIED ENVIRONMENT FOR CREATING WEB GRAPHICS.
Software Industry Report, p1(1)

March 16, 1998
Language: English Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 657

Web tool specialist **Macromedia** last week announced **Fireworks** , software it claims is "the first production tool to provide a unified environment for creating, **optimizing** and producing high-quality graphics" for the Web. Engineered from the ground up for professional Web designers, the new tool incorporates such advanced features as a visual **export** preview, complete control over compression and color palettes, automatic generation of button states and JavaScript...

12/3,K/10 (Item 9 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

05636660 Supplier Number: 50072114 (USE FORMAT 7 FOR FULLTEXT)
INTERNET: MACROMEDIA LETS OFF FIREWORKS IN TIME FOR JULY 4
Network Briefing, pN/A
June 15, 1998
Language: English Record Type: Fulltext
Article Type: Article
Document Type: Magazine/Journal; Trade
Word Count: 316

(USE FORMAT 7 FOR FULLTEXT)
TEXT:

Macromedia has released the final version of the **Fireworks** web graphics tool it promised in March. The company points out that though it grew out of market research conducted for FreeHand 8, **Fireworks** is not a revision of existing software but an entirely new product. It is designed...

...handle all stages of creating GIF and JPEG graphics for the web, from authoring through **optimization** and animation to integration with other tools such as DreamWeaver and Flash. The tool certainly departs from mainstream graphic environments in a couple of useful ways. Most importantly, **Macromedia** says it has finally realized that the distinction between bitmapped and vector graphics programs had...

...when processors were slow and RAM expensive. Now that that is no longer the case, **Fireworks** can support both vector and bitmapped images and rasterize on the fly. This means no more having to create a vector and text file in Freehand for **export** to Photoshop, where it flattens and ceases to be editable. The different components of a **Fireworks** image can be edited at any stage of the game, meaning last-minute client changes...

...but also that people loved it and it turned out to fulfill an unmet need. **Fireworks** also runs an **optimization** engine to compress images for fast download, various effects including JavaScript rollovers and support for image maps, and a visual **export** preview letting designers check results in JPG and GIF formats. Though **Fireworks** brings all these functions together and outperforms the shareware equivalents on WebReference.com benchmarks, free software retains one advantage. Estimated street price for **Fireworks** is around \$239. (c) ComputerWire Inc, 1998.

12/3,K/11 (Item 10 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

05525088 Supplier Number: 48374096 (USE FORMAT 7 FOR FULLTEXT)

Macromedia Introduces Fireworks(TM)

PR Newswire, p0323SFTU054A

March 23, 1998

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 1276

Producing Web Graphics

SAN FRANCISCO, March 10 /PRNewswire/ -- **Macromedia** (Nasdaq: MACR) today introduced **Fireworks**, the first production tool to provide a unified environment for creating, **optimizing** and producing high-quality graphics for the Web. Engineered from the ground up to address...

...needs of professional Web designers, the new tool incorporates such advanced features as a visual **export** preview, complete control over compression and color palettes, automatic generation of button states and JavaScript rollovers, as well as text and effects which are editable all the time. **Fireworks** allows designers to create the most compact graphics and GIF animations in the fewest steps...

...environment-keeping everything editable, all the time.

Focused Product for Web Graphics Production

Throughout the **Fireworks** development cycle, **Macromedia**'s engineering team worked closely with an advisory board of professional Web designers to create a tool that addresses the real-world needs of Web graphics production. **Fireworks** provides Internet-focused innovations such as a visual **export** preview window, where designers can consult side-by-side views of a graphic while experimenting...

...different compression schemes and color palettes. To help designers balance image quality and bandwidth requirements, **Fireworks** displays file size and download time data, updating these dynamically as the user **optimizes** the graphic. Designers can also **optimize** and preview GIF animations in **Fireworks**, controlling properties such as frame rate and tempo. Compression settings can be saved as presets for use in subsequent **export** operations or in batch processes.

"Fireworks is the fastest way to produce virtually any type...

12/3,K/12 (Item 11 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

05512530 Supplier Number: 48352324 (USE FORMAT 7 FOR FULLTEXT)

MACROMEDIA RELEASES FIREWORKS WEB PRODUCTION TOOL

Computergram International, n3366, pN/A

March 12, 1998

Language: English Record Type: Fulltext

Document Type: Newswire; Trade

Word Count: 279

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

San Francisco based web authoring tools company, **Macromedia** Inc, has introduced its new **Fireworks** production tool for simplifying the creation of graphics for the web. **Fireworks** is designed for professional users to solve workflow and the editing problems by letting designers do the whole process of creating and producing web graphics in one environment.

Macromedia said this cuts out some of the whole process the designer has to go through...

...a vector illustration tool, compositing the text with images in a bitmap application, and then **optimizing** the size of the graphic in a third program. Adding image maps and animation requires...

...several times. Other features include the ability to slice an image for faster downloading, then **export** the component graphics plus the HTML table to re-assemble them in the viewer...

...object changes, the effect updates automatically, so that every object is editable, all the time. **Fireworks** has a Image Map layer to enable assignment of URL links, as well as an...

...with the JavaScript code to control the button behavior. A pre-release beta version of **Fireworks** is available for download from www.getfireworks.com. **Fireworks** for Windows 95, NT and Macintosh PowerPC will be out in the summer for \$300.

12/3,K/13 (Item 1 from file: 20)

DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

10647807 (USE FORMAT 7 OR 9 FOR FULLTEXT)

MACROMEDIA: The CheckOut.com Entertainment Network elevates visitor satisfaction with Macromedia solutions

M2 PRESSWIRE

April 19, 2000

JOURNAL CODE: WMPR LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 685

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... settings enabling the site to create high-quality images at the smallest file sizes.

Furthermore, **Fireworks** allows CheckOut to easily import various graphic formats, **optimize** and then **export** those graphics to **Macromedia** Flash. "The seamless integration between **Macromedia** products brings us increased efficiency and better site management," added Mesrobian. CheckOut also uses **Macromedia** Dreamweaver to build the site's Web pages so they can be then exported into...

12/3,K/14 (Item 2 from file: 20)

DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

04658402 (USE FORMAT 7 OR 9 FOR FULLTEXT)

MACROMEDIA: Macromedia ships Fireworks 2

M2 PRESSWIRE

March 16, 1999

JOURNAL CODE: WMPR LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 688

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... integrated, making the creation of Web pages even more streamlined."

New Features in Fireworks 2

Fireworks 2 has several new features for designing, **optimizing** and integrating Web site graphics. With **Fireworks 2**, Web designers can create graphics with sophisticated behaviors such as rollovers, and then **export** those graphics and code in a format immediately recognized by the designer's HTML editor--without the need for time-consuming modification. Integration with **Macromedia Dreamweaver 2** enables designers to easily launch the full set of **Fireworks** editing features, and then return to Dreamweaver once graphics work is complete. For sitewide editing and rapid updates, **Fireworks 2** features graphic and text styles that can be shared among workgroups to ensure consistent...

...text, fonts, colors, and URLs. Along with an improved user interface and ease-of-use **optimizations**, **Fireworks 2** enables Web site creators to progress from concepts to completed Web graphics in one...

12/3,K/15 (Item 3 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

04376336 (USE FORMAT 7 OR 9 FOR FULLTEXT)
MACROMEDIA: Macromedia debuts Fireworks 2
M2 PRESSWIRE
February 17, 1999
JOURNAL CODE: WMPR LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 1032

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... Graphics and Code
Because graphics and code on the Web are tightly associated, integrating and **optimizing** graphics and HTML production is a central issue facing today's Web developers. **Fireworks** solves this real-world problem by enabling designers to create graphics with sophisticated behaviors such as rollovers, then **export** those graphics and code in a format immediately recognized by the designer's HTML editor -without the need for time-consuming modification. Designers can **export** code in the native formats of leading professional HTML editors such as **Macromedia Dreamweaver** as well as tools for office users such as Microsoft FrontPage. **Fireworks** ' HTML **export** templates are also fully customizable so developers can tailor them to individual needs.
While working...

12/3,K/16 (Item 4 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

04336788 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Macromedia Debuts Fireworks 2
PR NEWSWIRE
February 16, 1999
JOURNAL CODE: WPRW LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 1062

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... Graphics and Code
Because graphics and code on the Web are tightly associated, integrating and **optimizing** graphics and HTML production is a central

issue facing today's Web developers. **Fireworks** solves this real-world problem by enabling designers to create graphics with sophisticated behaviors such as rollovers, then **export** those graphics and code in a format immediately recognized by the designer's HTML editor -- without the need for time-consuming modification. Designers can **export** code in the native formats of leading professional HTML editors such as **Macromedia** Dreamweaver as well as tools for office users such as Microsoft FrontPage.

Fireworks ' HTML **export** templates are also fully customizable so developers can tailor them to individual needs.

While working...

12/3,K/17 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

10852289 SUPPLIER NUMBER: 53997693 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Review: Fireworks explodes with welcomed improvements; Enhanced GUI design at a lower price. (Macromedia Fireworks 2) (Software Review) (Evaluation)

Senna, Jeff

InfoWorld, 21, 9, 53(1)

March 1, 1999

DOCUMENT TYPE: Evaluation ISSN: 0199-6649 LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 854 LINE COUNT: 00072

ABSTRACT: Macromedia 's Fireworks 2.0 enhances an already powerful tool for creating Web graphics with an expanded feature...

...an improved user interface with many new menu options, numerous new tools and excellent graphics **optimization** capabilities that reduce file size for Web deployment. The tested beta version is stable and almost feature-complete. **Fireworks 2.0's** workspace is no longer cluttered and lets users customize the panels. Users...

...Web-safe' or transparent, and the user can specify a target size and let the **Export** wizard choose the best graphic format. **Fireworks** is also well integrated with **Macromedia 's** Dreamweaver authoring product.

12/3,K/18 (Item 2 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

10636201 SUPPLIER NUMBER: 20800636 (USE FORMAT 7 OR 9 FOR FULL TEXT)
MACROMEDIA LETS OFF FIREWORKS IN TIME FOR JULY 4.

Computergram International, n118, pCGN06150032

June 15, 1998

ISSN: 0268-716X LANGUAGE: English RECORD TYPE: Fulltext

WORD COUNT: 337 LINE COUNT: 00029

TEXT:

Macromedia has released the final version of the **Fireworks** web graphics tool it promised in March (CI No 3,366). The company points out that though it grew out of market research conducted for FreeHand 8, **Fireworks** is not a revision of existing software but an entirely new product. It is designed...

...handle all stages of creating GIF and JPEG graphics for the web, from authoring through **optimization** and animation to integration with other

tools such as DreamWeaver and Flash. The tool certainly departs from mainstream graphic environments in a couple of useful ways. Most importantly, **Macromedia** says it has finally realized that the distinction between bitmapped and vector graphics programs had...

...when processors were slow and RAM expensive. Now that that is no longer the case, **Fireworks** can support both vector and bitmapped images and rasterize on the fly. This means no more having to create a vector and text file in Freehand for **export** to Photoshop, where it flattens and ceases to be editable. The different components of a **Fireworks** image can be edited at any stage of the game, meaning last-minute client changes...

...but also that people loved it and it turned out to fulfill an unmet need. **Fireworks** also runs an **optimization** engine to compress images for fast download, various effects including JavaScript rollovers and support for image maps, and a visual **export** preview letting designers check results in JPG and GIF formats. Though **Fireworks** brings all these functions together and outperforms the shareware equivalents on WebReference.com benchmarks, free software retains one advantage. Estimated street price for **Fireworks** is around \$239.

12/3,K/19 (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

02219173 SUPPLIER NUMBER: 21137552
Assault of the Web graphics tools. (Macromedia Fireworks) (Consummate Winsock Apps) (Software Review) (Evaluation)
Stroud, Forrest
Boardwatch Magazine, v12, n9, p44(1)
Sept, 1998
DOCUMENT TYPE: Evaluation ISSN: 0894-5209 LANGUAGE: English
RECORD TYPE: Abstract

ABSTRACT: Web graphics tools from **Macromedia**, Adobe Systems and Microsoft are reviewed. **Macromedia**'s \$299 **Fireworks** includes a good set of tools for creating, **optimizing** and animating graphics on Web sites and includes excellent Web-publishing features. It uses a...

...that lets users create editable Live Effects from Bezier paths and objects. The program's **export** -preview capability for its own PNG files is very strong, but there is no GIF...

12/3,K/20 (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

03843319 Supplier Number: 48354006 (USE FORMAT 7 FOR FULLTEXT)
MACROMEDIA: Macromedia introduces Fireworks
M2 Presswire, pN/A
March 13, 1998
Language: English Record Type: Fulltext
Document Type: Newswire; Trade
Word Count: 1166

... 120398
-- Next-generation tool provides the first unified environment for creating and producing Web graphics
Macromedia today introduced **Fireworks**, the first production tool

to provide a unified environment for creating, **optimising** and producing high-quality graphics for the Web. Engineered from the ground up to address ...

...needs of professional Web designers, the new tool incorporates such advanced features as a visual **export** preview, complete control over compression and colour palettes, automatic generation of button states and JavaScript rollovers, as well as text and effects which are editable all the time. **Fireworks** allows designers to create the most compact graphics and GIF animations in the fewest steps...

...environment-keeping everything editable, all the time.

Focused Product for Web Graphics Production Throughout the **Fireworks** development cycle, **Macromedia**'s engineering team worked closely with an advisory board of professional Web designers to create a tool that addresses the real-world needs of Web graphics production. **Fireworks** provides Internet-focused innovations such as a visual **export** preview window, where designers can consult side-by-side views of a graphic while experimenting...

...different compression schemes and colour palettes. To help designers balance image quality and bandwidth requirements, **Fireworks** displays file size and download time data, updating these dynamically as the user **optimises** the graphic. Designers can also **optimise** and preview GIF animations in **Fireworks**, controlling properties such as frame rate and tempo. Compression settings can be saved as presets for use in subsequent **export** operations or in batch processes.

"Fireworks is the fastest way to produce virtually any type..."

12/3,K/21 (Item 2 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

03842538 Supplier Number: 48351474 (USE FORMAT 7 FOR FULLTEXT)
MACROMEDIA INTRODUCES NEW FIREWORKS FOR WEB GRAPHICS PRODUCTION
Telecomworldwire, pN/A
March 12, 1998
Language: English Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 69

Macromedia has introduced its new **Fireworks** production tool to provide a unified environment for creating, **optimizing** and producing graphics for the web. The **Fireworks** tool provides a visual **export** preview, automatic generation of button states and JavaScript rollovers. **Fireworks** for Windows 95/NT and Macintosh PowerPC will be available in the 3Q'98 and...

12/3,K/22 (Item 1 from file: 696)
DIALOG(R)File 696:DIALOG Telecom. Newsletters
(c) 2003 The Dialog Corp. All rts. reserv.

00597268
This Week In Multimedia Software
MULTIMEDIA WEEK
March 25, 1998 VOL: 7 ISSUE: 12 DOCUMENT TYPE: NEWSLETTER
PUBLISHER: PHILLIPS BUSINESS INFORMATION
LANGUAGE: ENGLISH WORD COUNT: 577 RECORD TYPE: FULLTEXT

(c) PHILLIPS PUBLISHING INTERNATIONAL All Rts. Reserv.

TEXT:

...business market

\$149.95

Now

Includes tools for creating Web sites in Java and VRML

Macromedia Inc. 800/470-7211 [http://www. macromedia .com](http://www.macromedia.com)

Fireworks

Web graphics tool: Allows designers to create compact graphics and GIF animations with few steps. Features a visual **export** preview window that gives designers side-by-side views of a graphic while experimenting with...

...the time; displays file size and download time data, which is updated as a user **optimizes** a graphic; allows control of frame rate and tempo.

Developers

\$299

Summer

Allows designers to...

?

16/3,K/1 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
(c) 2003 ProQuest Info&Learning. All rts. reserv.

00790506 94-39898

PhotoStyler closes in on its competitors

Marshall, Patrick
InfoWorld v15n47 PP: 86-89 Nov 22, 1993
ISSN: 0199-6649 JRNL CODE: IFW
WORD COUNT: 2107

...TEXT: can save for later loading is custom brush shapes.

PhotoStyler provides fine control over color **selection** . The color picker **displays** by default the spectrum in **RGB** ; hue, **saturation** , and brilliance (HSB); or **CMYK** .

PhotoStyler also lets you select from more than a dozen color-matching systems, including Munsell...

16/3,K/2 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

01758471 Supplier Number: 42205586 (USE FORMAT 7 FOR FULLTEXT)

Color laptops face hurdles

Computer Reseller News, p67
July 8, 1991
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 671

... expensive, the active matrix screens provide a higher contrast ratio, which means there is better **color saturation** (brighter and sharper **colors**), a larger **color selection** , and a wide **viewing angle**, said Toshiba's Friederichs.

The brightness and clarity of these new active matrix laptops...

16/3,K/3 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

06758685 SUPPLIER NUMBER: 14757051 (USE FORMAT 7 OR 9 FOR FULL TEXT)

PhotoStyler closes on its competitors. (PhotoStyler 2.0 image-editing package for Microsoft Windows) (Software Review) (Evaluation)

Marshall, Patrick
InfoWorld, v15, n47, p86(3)
Nov 22, 1993
DOCUMENT TYPE: Evaluation ISSN: 0199-6649 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 2406 LINE COUNT: 00190

... can save for later loading is custom brush shapes.

PhotoStyler provides fine control over color **selection** . The color picker **displays** by default the spectrum in **RGB** ; hue, **saturation** , and brilliance (HSB); or **CMYK** .

PhotoStyler also lets you select from more than a dozen color-matching systems, including Munsell...

16/3,K/4 (Item 1 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

01925284 SUPPLIER NUMBER: 18182347 (USE FORMAT 7 OR 9 FOR FULL TEXT)

A color match made in heaven. (Pantone ColorDrive 1.5) (Software Review) (Evaluation)

Busch, David D.

Computer Shopper, v16, n5, p384(1)

May, 1996

DOCUMENT TYPE: Evaluation ISSN: 0886-0556 LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 980 LINE COUNT: 00084

... be using. Color profiles, which take into account the capabilities of a particular device to **display** a given **selection**, or **gamut**, of **colors**, are included for the most-common monitors and printers. If your equipment is not listed...

16/3,K/5 (Item 1 from file: 635)

DIALOG(R)File 635:Business Dateline(R)

(c) 2003 ProQuest Info&Learning. All rts. reserv.

0506916 94-61153

New IntelliColor Display/20e from Radius delivers uncompromising performance

Anderson, D J

Business Wire (San Francisco, CA, US) s1 p1

PUBL DATE: 940627

WORD COUNT: 645

DATELINE: San Jose, CA, US

TEXT:

...ICD/20e offers user-selectable white points of 5000K, 6500K and 9300K and user definable **color** temperature control through hue and **saturation** adjusting. Because white point **selection** occurs in the **display** itself under IntelliColor software control, the color temperature can be adjusted without the loss in...

16/3,K/6 (Item 1 from file: 647)

DIALOG(R)File 647:CMP Computer Fulltext

(c) 2003 CMP Media, LLC. All rts. reserv.

00609494 CMP ACCESSION NUMBER: CRN19910708S4925

HIGH COST, LOW YIELDS HINDER SALES - Color laptops face hurdles

LISA L. SPIEGELMAN

COMPUTER RESELLER NEWS, 1991, n 428, 67

PUBLICATION DATE: 910708

JOURNAL CODE: CRN LANGUAGE: English

RECORD TYPE: Fulltext

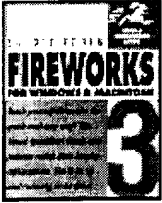
SECTION HEADING: hardware

WORD COUNT: 683

... expensive, the active matrix screens provide a higher contrast ratio, which means there is better **color saturation** (brighter and

sharper **colors**), a larger **color selection** , and a wide **viewing**
angle, said Toshiba's Friederichs.

The brightness and clarity of these new active matrix laptops...
?



Fireworks 3 for Windows & Macintosh: Visual QuickStart Guide

by Sandee Cohen

ISBN:0201704528

Peachpit Press © 2000 (304 pages)

Learn how to design, create, optimize, and output Web graphics with Fireworks' omnibus tool set, combining vector drawing, natural media bitmap tools, text editing, special effects, color management, animation, and HTML linking in one interface.

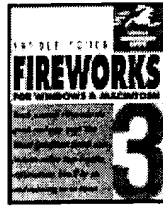
OCLC: 43699032	Rec stat: c		
Entered: 20000323	Replaced: 20000526	Used: 20030331	

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► 3	090	T385 #b .C5437 2000 ¶
► 4	092 0	006.6/869 #2 21 ¶
► 5	090	#b ¶
► 6	049	DCPP ¶
► 7	100 1	Cohen, Sandee, #d 1948- ¶
► 8	245 10	Fireworks 3 for Windows and Macintosh / #c Sandee Cohen. ¶
► 9	246 14	Fireworks for Windows & Macintosh 3 ¶
► 10	246 3	Fireworks ¶
► 11	260	Berkeley, CA : #b Peachpit ; #b in association with Macromedia Press, #c c2000. ¶
► 12	300	viii, 304 p., [8] p. of plates : #b ill. (some col.) ; #c 23 cm. ¶
► 13	440 0	Visual quickstart guide ¶
► 14	500	Includes index. ¶
► 15	630 00	Fireworks (Computer file) ¶
► 16	650 0	Computer graphics. ¶
► 17	650 0	Web sites #x Design. ¶

Cohen, Sandee, 1948- Fireworks 3 for Windows and Macintosh / Sandee Cohen.
Berkeley, CA : Peachpit ; in association with Macromedia Press, c2000. OCLC:
43699032

STATE	LOCATIONS
VA	dcp MMV PCX PZE VAN VRO
AK	XYZ
AR	AKD
AZ	MSA VTL
CA	APR bgc CCI CCP CLU CNU CSF CUZ CVL CZA HAY JRK JRQ JRW JRY JTB sjp smx SOU SVW
CO	cnl COB DDA DPL E3V XVV
CT	CTB GRT leo
DC	DGU dwp NDU
FL	FBA FCS FUB FWP ORL TYT
GA	AHD AIT GSE
GU	UGU
HI	HHD
IA	IWA NUI
IL	A4C FM0 GK3 IBI IHY INU JAG JDA JVQ
IN	IAM III xxw
KS	KCJ KFW
LA	LSL
MA	MLN MRQ NED NWO s6l SUF
MD	hrf
MI	EYA LKR
MN	MND MNI xot
MO	ELW hzlwd
NC	HQP NDK nql nrm
ND	NWQ
NJ	BER NNF
NY	BKL bxn COO h35 NAB RVE SDE VDH VKC ypl YQR ZQP
OH	CIN CLE FTD OA6 pwr
OK	OKJ
OR	OQP OQX ORX OXY SOS
PA	a4p AOP PBL PBU pwc SRS
SD	SBR
TN	ig# TLC TNW
TX	HT# IYU N\$V SHH TAP TXG TXH
UT	UTT UUC UUM UUS
WA	z35
WI	GZI GZM w76 WIQ wsd
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Chapter 14 - Optimizing

Fireworks 3 for Windows & Macintosh: Visual QuickStart Guide

by Sandee Cohen

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Chapter 14: Optimizing

Overview

People who create Web graphics are obsessed, not necessarily with the look of the graphics (although that would be nice), but with file sizes. They can spend hours working to reduce the size of a graphic from 5.1 kilobytes to 4.9 kilobytes.

Why the obsession? While two-tenths of a kilobyte may not seem like much to a single Web page, multiply it across the hundreds of graphics for a typical Web site and it adds up. That's a substantial amount of information that can take time to download-time that viewers don't want to waste sitting around waiting for a page to come into view.

Optimizing refers to making sure graphics are created in the proper format and in the smallest possible file size. It is often a juggling act to balance reducing the file size while at the same time keeping the appearance of the file.

Fireworks gives you specialized tools that that make it easy to reduce files while maintaining their appearance.

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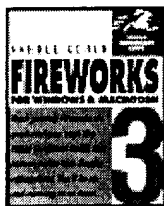
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Following the Optimizing Steps

There are several different parts to optimizing files. Use the steps below as a guide to optimizing files using the document window controls. *(For the equivalent steps using the special Export Preview controls, see [page 202](#).)*

To optimize and export files:

1. Use the tab controls in the Document Window to control the onscreen preview of the file (*see the [next page](#)*).
- Tip** ■ The onscreen preview allows you to compare different optimization settings as well as judge how long it will take the file to download.
2. Use the Optimize panel to set the type of file, its compression, and other file characteristics (*see [pages 192 and 197](#)*).
3. If you are optimizing a GIF file, control the colors in the file using the Color Table panel (*see [page 194](#)*).
4. Set the transparency options (*see [page 199](#)*).
5. Choose **File @ Export** to export the file at the optimization settings. (*See [Chapter 19, 'Exporting'](#)*)

The Optimize panel or Export Preview?

You can optimize images in two different places: in the document window using the Optimize panel or in the Export Preview dialog box. The document window makes it easier to modify the file as you optimize it. The Export Preview dialog box is used when optimizing Dreamweaver files.

This chapter uses the Optimize panel as the primary way to optimize files. The Export Preview dialog box is covered on [page 202](#).

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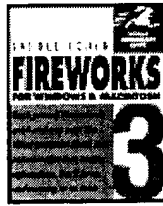
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Controlling the Onscreen Preview

As you optimize images, they can change their appearance from the original artwork. The preview tabs allow you to see the effects of the optimization settings on the image.

To use the preview tabs:

- Click the Preview tab in the document window 1 to see a full screen preview of the artwork.



1 The preview tab in the document window.

or

Click the 2-Up tab to split the window into two sections so you can compare the original artwork to the artwork at the current optimization settings.

or

Click the 4-Up 2 tab to split the window into four sections so you can compare the original artwork to the artwork at three different optimization settings.

Active panel

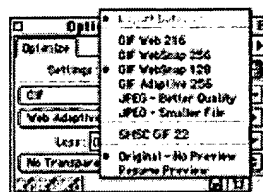


2 The 4-Up tab lets you compare different optimization settings of the image.

- Tip** ■ Use the zoom and magnification controls (*see pages 32–34*) to change the size or position of the preview.

To change in the preview sections:

- To see the original artwork within a preview section, choose Original–No Preview from the the Settings list in the Optimize panel 3.



3 The Settings list in the Optimize panel lets you change the preview status of the preview sections.

or

- Choose Resume Preview to see the effects of the optimization settings.

To change the preview gamma display:

- Choose View @ Windows Gamma or View @ Macintosh Gamma to see how your image will appear using a different operating system. (*See the color insert for a display of this effect.*)

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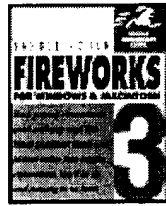
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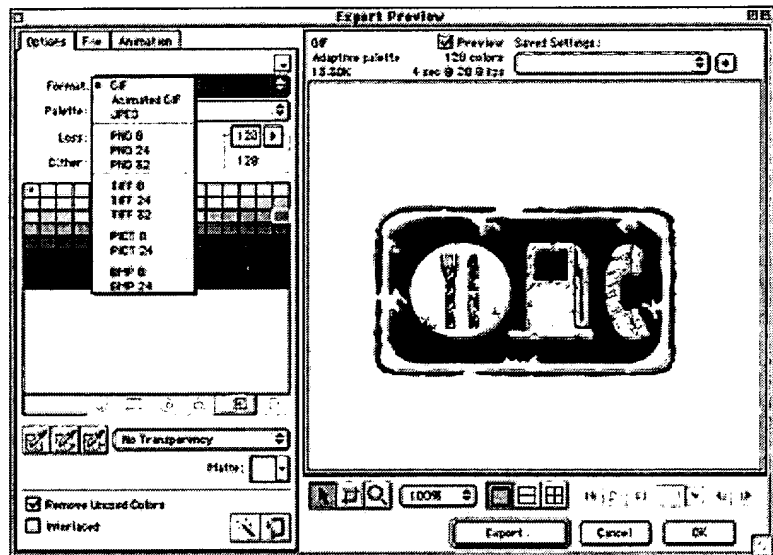
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Optimizing in the Export Preview

As mentioned earlier, you can also optimize images in the Export Preview dialog box. You can also export files directly from the Export Preview.

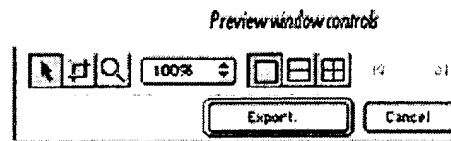
To optimize using the Export Preview:

1. Choose **File @ Export Preview**. This opens the Export Preview dialog box 28.



28 The Export Preview dialog box allows you to optimize and export files.

1. Use the Preview Window controls to split the preview area into sections 29.



29 The Preview window controls in the Export Preview dialog box function like the 2-Up and 4-Up tabs in the document window.

1. Use the Format list to choose the type of file format.
2. Set the format options.
3. Use the Transparency options to set any transparency for the

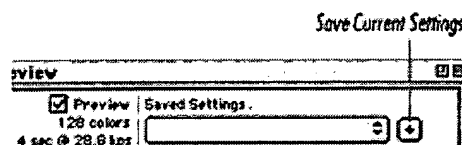
3. Use the Transparency options to set any transparency for the file.
4. Click OK to set the optimization and return to the document window.

or

Click Export to export the file. (See [Chapter 19, 'Exporting'](#) for more information on exporting files.)

To save settings using the Export Preview:

1. Click Save Current Settings 30 in the Export Preview.



30 The Save Current Settings button adds the current optimization settings to the Saved Settings list.

1. Name the settings file.
2. Click OK. The setting appears in the Export Preview Saved Settings list as well as the Optimize panel settings.

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